



THE JOURNAL
OF
The Department of Agriculture
OF
VICTORIA.

Vol. XVII. Part 9.

10th September, 1919.

THE STANDARD HERD TEST.

Seventh Annual Report on Testing of Pedigree Herds, conducted
by the Department of Agriculture, Victoria, Year ended
30th June, 1919.

By W. A. N. Robertson, B.V. Sc., Chief Veterinary Officer.

Which is the most popular breed of dairy cows in Victoria? A trip through any of the dairying districts, a day at the markets or the cattle pens at our leading shows, will supply the answer, and no one will deny its correctness—it is the Ayrshire.

According to statistics published in the *Commonwealth Year-Book*, the average yield of milk from cows in Victoria is 397 gallons. If we allow an average test of 4 per cent., we shall find that this returns 158 lbs. of butter fat per cow. Even with the present high prices for butter fat, it is evident that a very large number of dairy farmers—or, perhaps, it would be better to say farmers dairying—make money from outside sources and spend it in keeping their cows alive for no useful purpose. It goes without saying that in such circumstances any farmer's credit balance is very likely to be changed into an overdraft.

The cost of keeping a dairy cow has been variously estimated from time to time, but with the high costs now operating in the prices of labour, appliances, concentrates, &c., very few, if any, can be kept for less than £10 per annum. Consequently, the "average cow" in Victoria is a decided robber. There is but one way in which such robbers can be detected, and that is by weighing and testing.

Other than the Standard Test for pedigree herds conducted by the Department of Agriculture, the only systematic testing carried on by any association in Victoria is that of the Colac Herd Testing Association. If we look to it for information to support or confute the statement that one-third or more of the cows in this State do not pay for their keep, we learn from the association's last report that of 600 cows submitted to test, 300 failed to reach 200 lbs. of butter fat in their



The Tarnpirr Herd
Winner of the Department's Herd Prize.

lactation period. What a task, then, is set the other 300 to save their owners from insolvency! Fifteen of these cows failed to give 100 lbs. fat, while the worst cow gave a return of 87 lbs. If the price of butter fat be set down at 1s. 5d. per lb., the return from this animal would be only £6 3s. 3d. The worst herd of 20 cows, or under, gave an average of 161 lbs. fat, as did the worst herd of 50 cows, or over. The best cow gave 351 lbs. The highest number of cows in any herd giving 300 lbs. of fat was 16. And in reading these returns it must be remembered that they are from the best dairying country in the State.

Consideration of these figures suggests a question to which an answer is required; and as it is undisputed that the Ayrshire cow is the popular one, the Ayrshire breeders must supply the answer. Is this low return due to the prevalence of Ayrshire blood? Ayrshire



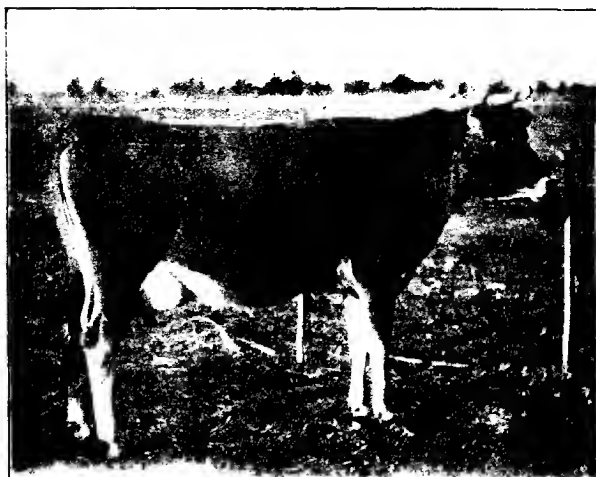
Mr. C. G. Knight's Heifer, "Lady Choice of Tarnpirr."

(Born 6.9.15.)

8,007 lbs. milk, 403 80 lbs. butterfat, 647 test.

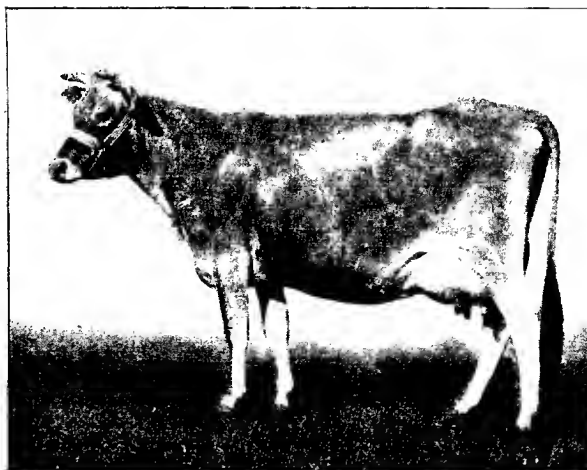
breeders are still shy of entering their herds for Government Certification, and the principal herds are conspicuous by their absence. The progressive breeders, however, recognising the high standard to which Ayrshires have been brought in other countries, realize the ultimate good to be derived from testing, and at present 23 herds are undergoing the test. Fifteen herds are mentioned in this report as having completed their term, instead of six as last year. The total number of cows of this breed which completed their test and gained the standard prescribed is 84.

Turning for a moment to the records published below, do the figures help us to answer the question? On studying the order of merit, it is seen that only 10 Ayrshires appear in the first 100 mature cows recorded—4 in the first 50 of second-calf cows, and 5 in the first 50



Mr. C. G. Knight's Heifer, "Pastime of Tarnpirr."
(Born 18.10.15)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1918-19	5,025	5-76	289-39



Mr. C. G. Knight's "Arcadia."
(Born 1.9.1910.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1911-15	1,842	5-49	265-90
1915-16	6,953	5-31	369-55
1916-17	8,407	5-25	441-39
1917-18	9,450	5-07	479-16
1918-19	9,817	5-14	504-70

heifers. There is, therefore, a blot upon the escutcheon of this popular breed; and while 23 owners have set out to demonstrate its worth, a more determined attempt must be made to show that it is capable of holding its own amongst all comers.

Sooner or later, Ayrshire breeders will be forced to submit their herds to the Test by clients who will require some assurance of increasing their returns. The present high prices ruling for all dairy farm requisites will make the dairy farmer, who has to make both ends meet, realize that it is only by keeping high producers that he can make a success of his labours.



Mr. W. Woodmason's "Chevy VIII. of Melrose."

(Born 12.3.12.)

Season.	Milk in lbs.	Fat.	Butter Fat in lbs.
1914-15	6,011	5.61	338.56
1915-16	5,680	6.05	341.08
1916-17	6,854	6.01	412.06
1917-18	6,271	5.79	362.21

Already a number of Ayrshire fanciers are introducing males of other breeds which have good butter fat records on their dams' sides. Many efforts are also being made to organize local herd testing associations, showing that "appearance" is losing its claim to recognition amongst progressive men as the method of selecting a dairy herd.

Converting a low yielding herd to one of high record cannot be carried out by a wave of the hand. Some years are necessary to accomplish results, during which culling and feeding lessons must be learnt and put into operation. What can be achieved is strongly exemplified in the herd of Mr. C. G. Knight who, on this occasion, attains the proud position of owning the herd which wins the departmental prize for the best herd in Victoria.

The Ayrshire breeders who will take to heart the lesson to be learnt from a study of the Tarnpitt herd, will realize the benefit of entering

early, and putting the preliminary years of culling behind them, and thus be in a position to supply tested animals for sale when the demand becomes more insistent, as it surely will. Already 23 dairy farmers are in the race for supremacy, with one or more laps to their credit, and with representatives of no mean order, as the records of the following show:—

	Lbs. of milk.	Test.	Lbs. of fat.	Lbs. milk on 1st day
Geelong Harbor Trust's—				
“Maid of Sparrowvale” ...	9,733	4.6	448	24½
W. C. Greave's—				
“Vanity of Warrook” ...	9,968	4.44	442	23½
“Fuchsia of Warrook” ...	10,056	4.23	425	20
Mr. A. E. Spiers'—				
“Camellia IV. of Ayrshire Bank” ...	8,217	4.96	407	16
“Folly V. of Ayrshire Bank” ...	9,297	4.34	403	17½
“Marcella of Ayrshire Bank” ...	10,548	3.98	399	20
Mr. J. Callery's—				
“Marjorie of Langley Park” ...	10,137	3.96	401	33½
Mr. S. A. Johnson's—				
“Bountiful of La Motte” ...	8,739	4.44	388	22

The following brief history of Mr. Knight's herd is interesting. In 1915, although it was the year of the drought—

5 mature cows averaged	...	299.59
2 second-calf cows averaged	...	225.53
11 heifers averaged	...	245.3

An average per cow of ... 258.21

In 1919 (without handicap or herd allowance)—

14 mature cows averaged	...	419.73
2 second-calf cows averaged	...	413.2
14 heifers averaged	...	366.31

An average per cow of ... 394.35

over a period, it must always be remembered, of 273 days.

In 1915 the first mature cow at Tarnpirr was 86th in the order of merit. This year there are four in the first 20. The highest second-calf cow from Tarnpirr in 1915 was 30th; now one is third, and in the heifer class, progress has been made from 13th to 1st, with the very handsome return of 493.8 lbs. of butter fat. Computing the value of butter fat at 1s. per lb. for both periods, the average return per cow during 1915 would have been £12 18s., whilst for the year ended 30th June, 1919, it would have been £19 14s. The lesson is obvious—without testing, culling, breeding, and feeding on sound principles, the herd would have been very little, if any, better to-day than it was five years ago, and profits—bearing in mind the cost of production—much less. To-day, Mr. Knight's average return for nine months is £27 18s. 6d. per cow, for butter fat is now worth 1s. 5d. per lb. The increased cost of production can have few terrors for the owner, for it must be borne in mind that the figures just quoted are for nine months only, and the herd was still yielding heavily at the completion of the test. Further, no allowance has been made for the value of skim milk.

That feeding plays an important part in the attainment of these records, is shown by consideration of the yields of three cows which have been tested over a period of five years:—

	1915.	1916.	1917.	1918.	1919.
	lbs. butter fat.	lbs. butter fat.	lbs. butter fat.	lbs. butter fat.	lbs. butter fat.
"Mythic" ..	316	361	332	474	487
"Foxglove" ..	256	265	315	407	469
"Arcadia" ..	—	265	441	479	504

Some critics will probably exclaim that these cows must have had wonderful pasture, or that they were forced with concentrates. The farm is situated at Cobram, in the dry North-east, and, wonderful



Mr. W. Woodmason's "Jessie's Progress."

(Born 10.9.1897.)

Season.	Milk in lbs	Test. %	Butter Fat in lbs.
1913-14 ..	6,379 1	6.38	406.94
1914-15 ..	7,784 1	5.96	461.28
1916-17 ..	5,916	6.13	368.84
1918 ..	5,880	6.07	357.11

pastures are not spoken of in that district. As for concentrates, £276 worth of bran and £40 worth of linseed meal were purchased during the year ended 30th June last and given to the 41 cows of which the herd is composed (30 only completed their period prior to 30th June). An average, therefore, of £7 14s. 1d. worth was fed each cow over twelve months, and all other fodder fed them was grown on the farm. For purpose of comparison (as it would be manifestly unfair to compare the 1915 and 1919 yields, and the quantities of concentrates used during both years without recognising the increased cost of both), we may assume that butter fat sold in 1915 at 1s. 5d., the average price received in 1919 by Mr. Knight. Thus, his return for the first-named period would have been £18 5s. 9d. per cow; in the latter £27 18s. 6d. showing an increase of £9 12s. 9d. Allowing



Mr. T. Mesley's Jersey Herd.

£7 14s. 1d. for concentrates, there is an improved return of £1 18s. 8d. per cow. Actually, the improvement is much greater, for no allowance has been made for the increased quantity and value of skim milk, nor are we making any allowance for concentrates used during the first period, though, as a matter of fact, concentrates were being used.

No loose methods of feeding are followed at Tarnpirr, but each cow is given a definite proportion, according to her yield of milk. They are always milked in a regular manner, each cow entering the bail in definite order. This practice maintains an important regularity between morning and evening milkings, and is conducive to consistent yields. The system of milking, together with bail feeding and kind treatment, has resulted in the cows leaving the herd in the yard to enter the shed when called by name.



Mr. T. Mesley's "Daisy of Springhurst."

(Born 22.9.10.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1912-13 ..	3,880	5.50	214.80
1913-14 ..	4,312 ^d	5.88	253.57
1914-15 ..	4,496 ^d	5.31	219.11
1915-16 ..	5,673	5.23	296.56
1916-17 ..	4,942	5.29	269.29
1917-18 ..	6,300	5.54	348.08
1918-19 ..	9,120	5.67	518.12

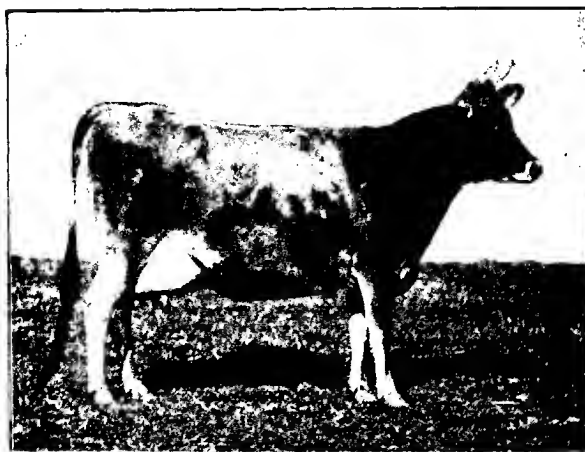
Feeding alone, however, would not produce such yields unless quality was inherent in the individual animals, and the return from the heifers indicates that a herd of very high producers is in the making. "Lady Choice," which heads the heifer class in the order of merit, has established a record for Victoria, by producing 493.8 lbs. of fat in nine months from 8,007 lbs. of milk, with an average test of 6.17, and the splendid yield of 30 $\frac{1}{2}$ of milk on the 273rd day. She is by "First Choice of Melrose," which was by "Pretty Noble." "First Choice of Melrose" was also sire of "Veronica of Tarnpirr" and "Sweet Nell," the former giving a return of 406, and the latter 399.8 lbs. of fat.

In "Arcadia" Mr. Knight has a splendid producer, 7th in the order of merit for cows over four years old. She has transmitted her

**Mr. T. Mesley's "Gazelle."**

(Born 13.8.11.)

Season.				Milk in lbs.	Test.	Butter Fat in lbs.
1916-17 .. ..	..	..	..	7.550	4.82	364.32
1917-18 .. ..	..	..	..	7.373	4.70	346.57
1918-19 .. ..	..	..	..	9.333	5.22	488.59

**Mr. T. Mesley's "Garenne II."**

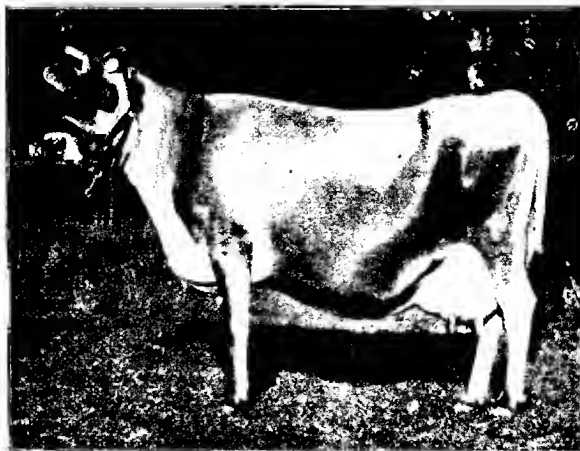
(Born 17.2.15.)

Season.	Milk in lbs.			Test.	Butter Fat in lbs.
				⁹⁹ / ₁₀	
1916-17	4,698	6.02	222.9
1917-18	6,681	5.26	351.76
1918-19	7,263	5.62	408.29

qualities to her progeny. Two of them, "Foxglove" and Miss Fox," full sisters, by Morocco's "Carnation Fox," are worth special mention, the former being 14th in the aged class, with 469.45 lbs. of fat; the latter 3rd in the heifer class, with 421.57 lbs. to her credit, and giving 26 lbs. of milk at the completion of test.

The heifers at Tarnpurr are particularly strong, the fourteen which are recorded giving an average of 366 lbs. of butter fat. The lowest on the list is "Marie," with 282 lbs., which will be recognised as an excellent return, when it is stated that she calved at 20 months.

Including handicaps and herd allowance provided for in computing the position for the Herd Prize, Mr. Knight shows an average of 447.7 lbs. of butter fat for each cow.



Mr. C. D. Lloyd's "Mercedes Noble Queen."

(Born 8.5.10.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1916-17	8,298	6-17	512-07
1917-18	8,052	6-09	545-88

The second prize goes to Mr. Woodmason's Melrose herd, in which—

36 mature cows returned an average of	...	lbs. fat.
11 second-calf cows returned an average of	...	386.21
7 heifers returned an average of	...	353.14
		326.46

An average for the herd (excluding all allow-

ances) of	...	371.6
With allowances	...	418.64

This herd has gained such prominence since entering the Test, that any reference to its excellence is like carrying coals to Newcastle. Ever since a prize has been allotted for the best herd Mr. Woodmason's has gained either first or second position. A feature of this year's return is the improvement in the yield by heifers; the average last year was 280 lbs. on this occasion, 326 lbs.

With "Jessie VI of Melrose," Mr. Woodmason is to the fore again. She has been placed third in order of merit, with 541 lbs. of fat. Her record for the past four years is as follows:—

Calving Date.	Milk.	Test.	Butter Fat.	Lbs. of Milk on Last Day of Test.	Order of Merit
	lbs.				
27.4.14 ..	7,924	6.71	532.17	21½	6th
10.8.15 ..	8,342	6.27	523.34	13½	1st
6.11.16 ..	7,691	6.74	518.35	24½	1st
25.12.17 ..	8,479	6.39	541.6	27½	3rd

In this record she shows great consistency, and adds to the fame of the "Jessie" family.

Other prominent cows in this herd are:—

	1915.	1916.	1917.	1918.	1919.
	lbs.	lbs.	lbs.	lbs.	lbs.
Pearl III. ..	..	290	317	427	481
Empire VI. ..	..	..	..	440	479
Lassie Fowler IV. ..	340	..	425	499	171
Quality VI. ..	417	478	436	451	469
Graceful Duchess XIV. ..	..	..	..	280	431
Rarity VIII. ..	..	..	..	353	425

Mr. T. Mesley's "Warenda" herd attains third position on this occasion, passing from its fifth position of last year. Consideration of the figures shows it to be a very high yielding herd, the return from mature cows being an average of 433 lbs. fat, which is better than that of all the other herds. It is worthy of more than passing note that of the twelve mature cows, ten gave over 400 lbs. of fat. With all allowances the return is 418 lbs. of butter fat, thus Mr. Mesley's herd was beaten by that of Mr. Woodmason by an average of .64 lbs. per cow.

The leading cow of the herd is Daisy of Springhurst. She appears fifth in order of merit with 518 lbs. of fat, and 15½ lbs. of milk on the last day. She is closely followed by Warenda, which is next in the order of merit with 517 lbs. of fat and 23 lbs. of milk on two hundred and seventy-third day. Gazelle is eighth with 488 lbs., and 23½ lbs. of milk. These three cows have each given over 9,000 lbs. of milk, and over a full lactation period would probably have reached 1,000 gallons.

The fourth herd is that of Mr. C. Gordon Lyon, of Banyule. This herd has shown great consistency, being among the first four each year. The average return on this occasion is 406 lbs. of fat, an advance over last year, when the average was 386 lbs.

The leading cow is Molly IV. of Banyule, with 444 lbs. of fat and 16½ lbs. of milk on the last day. This cow was fifth in the 200-lb. class, when she completed her last lactation period with 392 lbs. Chorus, which has been tested twice, has given 411 and 427 lbs. in the last two years. Magnolia, a heifer on her first calf, has yielded 376 lbs. fat, and in the near future will probably occupy a very prominent place.

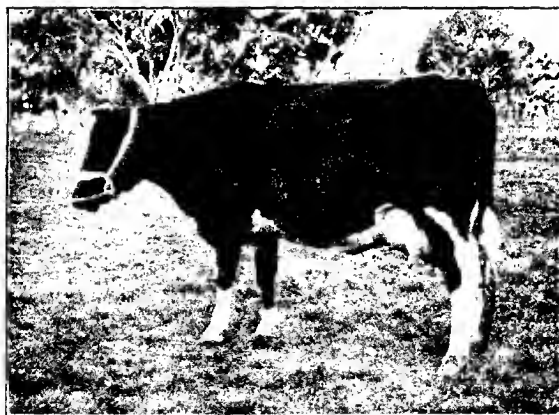
Mr. J. D. Read's Springhurst herd, which was second last year with 399 lbs., now takes fifth position with 390 lbs. The leading cow is Freezia of Springhurst, with 439 lbs. of fat. Her yield was 374 lbs. last year, and 264 lbs. in 1917, as a heifer. Banksia, with 405 lbs., eleventh in the 200-lb. class, and 308 lbs. as a heifer last year, is worthy of note. The herd as a whole shows consistent records, and



Mr. O. J. Syme's Heifer, "Bolobek Aaggie"

(Born 13.4.16.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1918-19	9,582	4.35	117.43



Mr. O. J. Syme's "Bolobek May."

(Born 21.11.14.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1918-19	10,548	3.72	192.31

again demonstrates, especially when considered with Mr. Knight's winning herd, that the North-eastern District is valuable, under good management, as a dairy district, and confutes the statement so often made that good returns cannot be obtained on poor country. Attention may be directed to some aspects of treatment common to all the leading herds. They are all quietly handled, milked in a regular manner, without leg ropes, and fed an average of 8 lbs. of concentrates per day.

In the winning herd rugging is not general, only particular cows being rugged. The mild climate of the north-east does not make it so necessary as in the colder parts, though at Mr. Read's rugging is generally practised. The herds considered so far are all Jerseys. Next in order comes the "Bolobek" Friesian herd of Mr. O. J. Syme.



Mr. O. J. Syme's "Bolobek Dolly Gray."

(Born 13.8.14.)

Season.	Milk in lbs.	Test. %	Butter Fat in lbs.
1918-19	11,367	3.69	419.42

Four herds of this breed are now under test, and 23 cows have gained their certificates. Mr. Syme's is the only one, however, in which more than ten cows completed.

- 7 mature cows gave an average of ... 347.9 lbs. of butter fat.
- 4 second calf cows gave an average of 365.06 lbs. of butter fat.
- 3 heifers gave an average of ... 328.7 lbs. of butter fat.

The leading mature cow is Bolobek Belle. Her return was 391 lbs. of fat, as against 384 lbs. the previous year. This was obtained from 10,747 lbs. of milk. The return is exceeded by three other younger cows. Bolobek Dolly Grey and Bolobek May, in the second-calf cow class, gave respectively 419 and 392 lbs. of fat, the former from 11,367 lbs. of milk, and the latter from 10,548 lbs. One other cow in the herd gave over 1,000 gallons, viz., Princess Ena, whose yield was 10,449 lbs. milk and 384 lbs. of fat. In Bolobek Aaggie, on her first calf, which gave 9,583 lbs. of milk, and 417 lbs. of fat, with 22½ lbs. of milk on the last day, Mr. Syme has a splendid representative.

The next two herds are Ayrshires. Mr. A. Spiers' "Blair Athol," Nalangil, takes seventh place. This is the first time this breeder has had his herd under test, and to gain this position is highly creditable, and it is possible that within a few years considerably more will be heard of it. The eleven mature cows gave an average of 343 lbs. of fat, and the one second-calf cow 399 lbs., an average for the herd, including allowances, of 358 lbs. The leading cow, Camellia IV. of Ayrshire Bank, gave 407 lbs. of fat in the 273 days, and 16 lbs. of milk on the last day. She is closely followed by Folly V. with 403 lbs., while Bramble II. and Ada of Blair Athol, come next with 387 lbs. of fat each.



Mr. A. E. Spiers' "Marcella of Ayrshire Bank."

(Born 16.10.11.)

Season.	Milk in lbs.	Test.	Butter Fat in lbs
1918-19	10,026	3.98	399.21

The second calf cow, Marcella of Ayrshire Bank, is the leading Ayrshire in this class, being fifteenth in order of merit, with 10,026 lbs. of milk, 399 lbs. of fat, and 20 lbs. of milk on the last day, a return that marks her as a highly profitable animal, and one that will be watched for future progress.

The Geelong Harbor Trust "Sparrowvale" herd is close behind the Blair Athol one, with an average of 356 lbs. of fat.

To this herd goes the honor of having the leading Ayrshire in Maid of Sparrowvale, with 9,733 lbs. of milk and 448 lbs. of fat. She is twenty-fifth in the order of merit, and has shown herself a worthy representative. As a heifer, she yielded 297 lbs. of fat, and as a second calf cow 332 lbs. Budding Rose of Sparrowvale appears on her first calf with 338 lbs. of fat, and is an illustration of how improvement can be brought about by paying attention to records, with, at the same time, good management and feeding.



Mr. A. E. Spier's Ayrshire Herd.

The annual champion cow for this year is found in Tiddlewinks II. of Holmwood, a Jersey owned by Mr. S. Rowe, of Mount Eccles. She gave the handsome yield of 10,850 lbs. of milk, with an average test of 5.32 and 576.9 lbs. of fat in 273 days, and, on the last day of the term, 29 lbs. of milk. She thus stands out as one of the heaviest producers of this breed. The record was established amongst some of the most broken country in South Gippsland, but Mr. Rowe realizes that wandering over such country is not conducive to high yields, so that most of the cows are kept in a small paddock, and the energy which would be wasted in climbing hills is utilized for milk production. It would be necessary to milk three and a half of the average Victorian cows in order to obtain a return similar to that of Tiddlewinks II. What a saving of labour it would be to give the feed of the three and a half to one good cow, and what time now uselessly spent would be available for cultivation.



THE YEAR'S CHAMPION.

Mr. S. Rowe's "Tiddlewinks II of Holmwood."

Season.	Milk in lbs.	Test.	Butter Fat in lbs.
1918-19 ..	10,850	5.32	576.91

The Reserve Annual Champion Prize was won by Mercedes' Noble Queen, owned by Mr. C. D. Lloyd. Her return was 545 lbs. of fat from 8,952 lbs. of milk. She has shown herself a consistent yielder, for she won the premier position in 1917 with 522 lbs. of fat.

Jessie VI. of Melrose, already referred to, is third in order of merit, being only 4 lbs. of fat behind Mercedes' Noble Queen.

Mr. A. Jackson, of Glen Forbes, provides the fourth cow in Graceful Duchess XI, with a yield of 538 lbs. of fat, and 22 lbs. of milk on the last day of test. The yield is another indication of what can be done amongst the hills of South Gippsland when care and attention is bestowed.

In the 200 lbs. Standard Class, first place is taken by Mr. A. W. Jones' Friesian cow May Queen II., with a splendid return of 519 lbs.

**Mr. Trevor Harvey's "Lady Marge of Jerseyholm."**

(Born 13.4.15.)

Season	Milk in lbs.			Test.	Butter Fat in lbs
1917-18	4.868	282.64
1918-19	6.496	417.80

**Mr. C. Falkenberg's "Annie of Taringa."**

(Born 5.9.11.)

Season.	Milk in lbs.			Test.	Butter Fat in lbs
1916-17	5.689	333.32
1917-18	4.803	271.18
1918-19	6.265	351.48

of fat from 11,319 lbs. of milk, and 32 lbs. of milk on the last day. This cow was first in the heifer class last year, when her yield was 410 lbs. of butter fat. She therefore promises well, and should be amongst the prominent mature cows next year.

The second cow in this class is also a Friesian, Kathleen, of the herd of the Werribee Research Farm. Her return was 451 lbs. of fat from 12,027 lbs. of milk. This breed has shown up very well since its introduction to the Research Farm. Five cows have completed their test, and four of them have given over 1,000 gallons of milk. Madrigal was placed fourth in order of merit with 11,375 lbs. milk, 447 lbs. of butter fat; and Hyacinth, which will be referred to in the heifer class, as Wood Nymph, 10,610 lbs. of milk and 336 lbs. of fat, have done well. Other forward cows in this class have been already referred to in dealing with the herds.

In the heifer class, the first place is taken by Lady Choice, owned by Mr. C. G. Knight, and has been already referred to as having established a record with 493 lbs. of fat from 8,007 lbs. of milk. She gave 30½ lbs. of milk on her last day. Hyacinth, a Friesian, from the Research Farm, is second with 448 lbs. of fat from 11,429 lbs. of milk.



Leongatha Agricultural High School Jersey Herd.

Miss Fox of Tarnpirr, Bolobek Aagie, and Veronica of Tarnpirr, next in order of merit, have been previously referred to; but, sixth, comes Molly of Clover Flat, with 403 lbs. of butter fat from 6,510 lbs. of milk. She is owned by Mr. D. G. Tomkins, of Coleraine, another breeder who recognises the value of testing, and enters under auspicious circumstances.

The number of herds included in this report is 52, an increase of 22 over last year. They include:—

- 29 Jerseys with 293 certificated cows.
- 15 Ayrshires with 84 certificated cows.
- 4 Friesians with 23 certificated cows.
- 3 Red Poll with 41 certificated cows.
- 1 Milking Shorthorn with 8 certificated cows.

The number of herds at present undergoing test is 75.

Standard Cow Prizes.

The following prizes were offered by the Government for the year ended 30th June, 1919. The prizes will be awarded through the Royal Agricultural Society:—

1. *Grand Champion Cow*—under Herd Test Regulations.

A grand champion prize of £100, as a trophy or cash, for maintaining the position of annual champion for three years, not necessarily in succession. Not yet allotted.

2. *Annual Champion Cow*—under Herd Test Regulations.

A prize of £10, to be awarded to the cow which, during a lactation period terminating within a year ending on 30th June, gives the greatest amount of butter-fat under the herd testing regulations of this Department.

Won by "Tiddlewinks H. of Hohnwood"; owner, S. Rowe.

*3. *Reserve Annual Champion*—under Herd Test Regulations.

A prize of £5 per annum to be awarded to the cow attaining second place under the herd testing regulations of the Department during the year ended 30th June.

Won by "Mercedes Noble Queen"; owner, C. D. Lloyd.

These prizes to be awarded conditionally upon the winning cow being exhibited at the next Royal Agricultural Show. In the event of the death of the winning cow prior to such Show, the owner to exhibit his next best cow.

4. *Best Herd*—under Herd Testing Regulations.

A first prize of £20 and a second prize of £10 to be awarded to the herds giving the greatest average returns under the herd testing regulations of this Department and complying with the following conditions:—

(1) Minimum number of cows (completing the test during the year) in a herd, 10.

(2) Such herd to average not less than 300 lbs. of butter-fat

(a) Handicaps to be allowed on the following scale:—

i A herd of more than 10 cows to receive a handicap of $\frac{1}{2}$ lb. of butter fat for each cow.

ii Cows entered under regulation 11a to receive a handicap of 75 lbs. of butter fat.

iii Cows entered under regulation 11 b and c to receive a handicap of 50 lbs. of butter-fat.

The prizes to be allotted for the year ending 30th June, and the three best cows in the winning herd to be exhibited at the next Royal Agricultural Show.

First prize won by the "Tarupier" Herd; owner, Mr. C. G. Knight.

Second prize won by the "Melrose" Herd; owner, Mr. W. Woodmason.

No cow competing for any prize shall be milked more than twice a day, and must re-calve within fifteen months from her previous calving date.

* In the last annual report Mr. A. W. Jones was credited with winning this prize with "Jubilee XV.", but as this cow did not calve within the prescribed time the rightful winner was Mr. C. G. Lyons' "Velevteen II."

RETURN OF CERTIFICATED COWS FOR YEAR ENDED 30th JUNE, 1919.

W. K. ATKINSON, Swan Hill. (Shorthorn.)

Completed during the year. 8. Cert. ficated, 8.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Daphne XIII.	Not yet allotted	5.10.17	273	lbs. 19	lbs. 8,290	3.45	lbs. 266.30	lbs. 200	lbs. 326½
Blanche Rose X.	..	16.10.17	273	20½	8,106	3.65	296.15	175	337½
Cherry V.	..	21.10.17	273	11	3,760	4.07	234.87	175	267½
Dairymaid 26th	..	22.10.17	273	20	6,409	4.07	263.61	175	330½
Morven Rose VI.	..	1.12.17	273	26½	10,624	4.06	431.70	250	492½
Duchess 43rd	..	18.1.18	273	10	4,862	4.20	204.43	200	233
Morven Queenie IX	..	17.5.18	273	20½	6,730	4.15	279.83	175	319
Daphne XIII.	..	24.9.18	273	2	8,170	3.53	288.67	250	329

J. BAKER, Gheringhap. (Red Poll.)

Completed during the year. 2. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Karong Daisy	Not yet allotted	22.10.17	273	lbs. 10½	lbs. 4,638	4.57	lbs. 184.69	lbs. 175	lbs. 216½

A. E. BATSON, Buckley. (Jersey.)

Completed during the year. 3. Certificated, 3.

Name of Cow	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Lady Marjoe of Gipsland	Not yet allotted	26.8.18	273	lbs. 17	lbs. 4,441	6.25	lbs. 277.63	lbs. 175	lbs. 316½
Defender's Queen I. of St. Albans.	..	31.8.18	273	15½	4,457	6.55	291.81	175	322½
Jubilee Queen J. of St. Albans	..	6.9.18	273	15	3,893	6.09	272.25	175	319½

F. BIDGOOD, Staghorn. (Jersey.)

Completed during the year. 1. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Lotus Flower	4665	3.8.18	273	lbs. 20	lbs. 7,985	5.05	lbs. 451.12	lbs. 250	lbs. 541½

MRS. A. BLACK, Noorat. (Jersey.)

Completed during the year, 10. Certificated, 7.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Marguerite	3576	20.3.18	273	4	6,137	4.44	272.66	250	311
Flashlight	1972	5.4.18	273	41	5,903	4.53	267.69	250	306½
Mona's Pearl	3577	6.4.18	273	10	5,612	4.75	266.59	250	304
Madge	3575	10.4.18	273	91	5,513	5.08	280.14	250	319½
Opaline	3578	21.7.18	273	12	4,971	5.29	283.17	250	300
Dolly of Clydebank II.	3742	15.8.18	289*	18	5,760	6.35	366.01	250	412½
Beauty of Candelo III.	Not yet allotted.	27.8.18	273	7	5,257	4.87	255.96	200	291½

* Records ceased four days before completing.

ESTATE OF THE LATE J. CALLERY, Bannockburn. (Ayrshire.)

Completed during the year, 6. Certificated, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Marjorie of Langley Park	2839	11.7.18	273	33½	10,137	3.96	401.40	250	457½
Alma of Langley Park	3477	20.7.18	273	20½	6,301	4.60	289.67	175	330½
Lady Marjorie of Glen Arthur	2838	18.9.18	273	13	7,649	4.01	396.96	250	349½
Crystal of Rydhale	2837	22.9.18	273	17½	8,979	3.85	346.10	250	394½

Dr. S. S. CAMERON, Hawthorn. (Jersey.)

Completed during the year, 1. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Pride of Rocklands	4719	14.12.17	273	16	7,093	5.04	353.00	250	402

J. W. COCHRANE, Moorabbin. (Ayrshire.)

Completed during the year, 3. Certificated, 3.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Mary of Springfield	4973	10.9.18	273	11	6,096	4.62	281.80	175	321½
Rozeaf of View Point	4975	17.9.18	273	16	6,937	4.25	294.78	175	336
Myrtle of Springfield	4974	24.9.18	273	12	5,545	4.69	274.45	175	312½

DEPARTMENT OF AGRICULTURE, Wyuna. (Jersey.)

Completed during the year, 3. Certificated, 3.

Name of Cow	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk first Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Baroness of Wyuna	4881	10.1.18	273	lbs. 273	lbs. 6,812	5.68	386.97	lbs. 250	lbs. 441
Rosella II. of Kingsvale	4888	9.5.18	273	22	7,219	5.69	411.60	250	469
Lovebird	4885	13.7.18	273	17	6,921	5.72	396.21	200	451

DEPARTMENT OF AGRICULTURE, Werribee. (Red Poll and Friesian.)

Red Poll—Completed during the year, 44. Certificated, 33.

Name of Cow	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk first Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Serbia	Not yet allotted	10.10.17	273	18	10,036	4.05	406.58	250	463
Asiana	"	18.10.17	273	13	7,875	4.25	334.74	250	281
Europa	"	19.10.17	273	15	8,436	4.27	360.11	250	410
Hullion	"	21.10.17	273	9	6,223	4.12	356.62	250	292
Mahratta	"	24.10.17	273	16	6,277	4.58	287.48	250	327
Ontario	"	10.11.17	273	10	7,015	4.33	304.06	250	316
Pacific	"	17.11.17	273	13	6,923	4.37	263.30	250	300
Netherland	"	11.12.17	273	24	8,412	4.12	346.31	250	394
Birdseye	"	26.12.17	273	15	7,202	5.09	360.31	250	410
Crimea	"	26.12.17	273	17	5,917	3.95	233.36	175	268
Persica	"	26.12.17	273	24	7,519	4.74	356.20	250	408
Scotia	"	27.12.17	273	21	7,036	4.32	303.08	175	316
La Belle France	"	29.12.17	273	15	8,095	4.33	352.05	250	401
La Plata	"	30.12.17	273	13	6,173	3.94	211.67	175	266
Briar	"	8.1.18	273	17	6,783	4.37	296.55	250	338
Empire	"	31.1.18	273	14	5,659	4.69	242.30	250	321
Santa Clara	"	8.2.18	273	10	7,227	4.59	331.89	250	378
Azora	"	28.4.18	273	11	7,118	4.21	302.00	200	345
Cutty	"	16.5.18	273	19	9,668	4.69	433.73	250	517
Muria	"	17.5.18	247	4	7,066	5.42	383.04	250	436
Carriaga	"	18.5.18	273	4	6,750	4.65	307.36	250	350
Goldface	"	18.5.18	273	19	7,912	4.72	373.15	250	425
Cunao	"	5.6.18	273	18	7,781	1.12	329.93	250	369
Aveda	"	27.6.18	273	14	7,215	4.26	308.85	250	352
Nickahoe	"	18.7.18	273	10	5,012	4.74	247.83	250	271
Kubanka	"	21.7.18	273	5	6,614	4.21	278.39	250	317
Samolina	"	3.8.18	273	19	7,006	4.23	312.43	250	390
Soudann	"	4.8.18	273	12	7,320	4.07	294.28	250	335
Tonga	"	9.8.18	273	16	8,444	4.31	353.83	250	437
Niddiana	"	10.8.18	273	22	7,269	5.30	385.32	250	430
Latakia	"	10.8.18	273	14	8,210	4.75	390.37	250	445
Valvolen (imp.)	"	15.8.18	273	14	6,765	3.89	263.48	250	300
Pendant	"	16.9.18	273	15	4,895	3.71	181.57	175	297

Friesian—Completed during the year, 5. Certificated, 5.

Hyacinth	"	29.8.18	273	27	11,420	3.92	448.50	175	511
Muldrick	"	8.9.18	273	38	11,373	3.93	447.50	200	510
Wood Nymph	"	20.9.18	273	30	10,619	3.17	336.21	175	383
Kathleen	"	21.9.18	273	22	12,027	3.73	451.17	200	514
Moule	"	25.9.18	273	18	6,769	3.66	218.55	200	283

C. FALKENBERG, Elliminyt. (Jersey.)

Completed during the year, 10. Certificated, 7.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Trivie of Colac	4914	1.11.17	273	109	3,527	5.17	182.50	175	208
Silver Queen H. of Taringa	4913	1.11.17	273	91	3,386	5.19	175.67	175	200
Silver Belle of Colac	4930	25.4.18	273	11	3,951	5.60	221.26	250	252
Annie of Taringa	4023	17.5.18	273	12	8,263	5.64	351.48	250	400
Lady Merlin	Not yet allotted	7.7.18	273	9	4,227	6.00	256.37	175	292
Mayflower of Colac	4909	19.9.18	271	1	2,967	6.22	184.51	175	210
Doris H. of Kingsdale	4925	23.9.18	273	91	5,497	5.27	289.89	250	330

FLACK and SEWELL, Berwick. (Friesian.)

Completed during the year, 1. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Dominion Flower Queen	Not yet allotted	2.7.18	273	24	7,920	3.66	230.24	175	330

G. M. GANGE, Junr., Mininera. (Ayrshire.)

Completed during the year, 4. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Gardens of Seafield	5111	10.2.18	273	12	6,784	4.68	317.16	250	362
Van H. of Fernhill	1086	7.7.18	273	10	6,526	3.06	258.65	250	294
Eva of Glencairn	4110	25.8.18	274	6	6,057	4.40	266.57	250	303
Sarah of Glen Alvie	1183	21.9.18	218	4	5,925	4.53	268.30	200	305

* Record ceased before completion of term.

W. C. GREAVES, Monomeith. (Ayrshire.)

Completed during the year, 8. Certificated, 8.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Fidact of Warrook	2541	1.10.17	273	1	7,411	4.11	303.44	250	347
Grace Darling of Warrook	2909	24.10.17	256	4	7,028	4.08	287.04	250	327
Verona of Warrook	5174	21.11.17	273	9	7,398	4.10	303.71	175	346
Vanity of Warrook	2546	1.8.18	273	231	9,968	4.14	412.66	250	501
Letty of Warrook	3910	25.8.18	273	8	5,831	4.82	281.00	250	320
Leila of Warrook	5173	25.8.18	273	131	5,702	5.03	268.88	175	327
Fairy of Warrook	5170	1.9.18	273	163	6,351	4.58	291.18	175	331
Fuchsia of Warrook	2544	21.9.18	273	20	10,056	4.23	425.35	250	481

GEELONG HARBOR TRUST, Marshelltown. (Ayrshire.)

Completed during the year, 15. Certificated, 15.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Test Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Rose of Sparrowale	3806	9.10.17	273	10	6,186	4.58	242.86	175	209
Belle of Sparrowale	3883	22.10.17	273	11	5,040	4.80	211.94	175	275
Bluebell of Sparrowale	3886	1.6.11.17	273	10	7,115	4.19	399.47	200	341
Princess Edith of Gowie Park	2876	28.11.17	273	11	7,501	4.28	421.33	250	368
Sylvia of Sparrowale	2515	3.1.18	273	5	6,788	4.47	283.19	250	321
Erolie of Sparrowale	2874	21.1.18	273	13	7,420	4.12	428.02	250	374
Flower of Sparrowale	3863	15.3.18	273	21	6,680	4.66	311.22	250	351
Gipsy Girl of Sparrowale	3804	30.3.18	273	17	6,275	5.16	321.73	175	368
Midge of Sparrowale	3900	16.4.18	273	12	6,681	4.46	298.47	250	340
Maid of Sparrowale	3900	9.7.18	273	24	6,731	4.66	418.84	270	511
Budding Rose of Sparrowale	3887	28.9.18	273	11	6,365	5.31	338.92	175	385
Bluebell of Glen Elgin	1806	5.9.18	273	12	8,517	4.50	383.32	240	437
Meadow Sweet of Sparrowale	3803	4.9.18	273	13	5,640	4.93	278.35	175	317
Clover of Sparrowale	2872	16.9.18	273	1	7,142	5.07	362.02	250	412
May of Sparrowale	3802	21.9.18	273	9	5,065	5.17	246.03	175	209

T. HARVEY, Boisdale. (Jersey.)

Completed during the year, 9. Certificated, 9.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Test Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Daisy V. of Holmwood	4078	14.10.17	273	13	5,568	4.93	274.36	175	412
Lady Marvel IV.	4101	21.12.17	273	19	6,294	6.10	390.40	240	452
Bluebell of Jerseyholm	Not yet allotted	27.3.18	273	9	5,883	6.27	242.72	175	277
Lady Marge of Jerseyholm	4081	11.5.18	273	13	6,406	6.43	417.89	200	476
Kirsty VI. of Jerseyholm	4080	18.5.18	273	12	5,378	6.46	347.45	175	399
Kirsty V.	4100	29.6.18	273	15	6,180	5.78	357.15	250	407
Sparkle	2978	29.6.18	273	14	5,548	5.64	311.74	240	353
Empress II. of Holmwood	4079	29.7.18	273	15	6,720	5.11	365.43	175	410
Dainty VI.	4099	12.8.18	273	9	5,870	5.44	319.81	240	363

* Calved 6 weeks prematurely.

S. CULLIS HILL, Lower Plenty, Heidelberg. (Jersey.)

Completed during the year, 9. Certificated, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Test Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Lotina's Magnet	Not yet allotted	17.9.17	273	1	5,516	4.80	216.87	240	247
Ornament	314 C.S.B.B.	23.2.18	273	12	6,039	4.62	278.87	250	318
Cloverleaf	Not yet allotted	8.5.18	273	13	5,735	4.79	276.79	200	313
Lotina's Magnet	..	21.8.18	273	5	5,566	5.44	302.69	250	345

A. JACKSON, Glen Forbes. (Jersey and Ayrshire.)**Jersey—Completed during the year, 9. Certificated, 9.**

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Moonlight	Not yet allotted	26.9.17	273	9½	4,658	5.02	234.06	175	266½
Mystery XIV. of Melrose	452	25.9.17	273	20	9,681	4.69	454.68	250	518½
Graceful Duchess XI.	C.S.H.B. 394	3.10.17	273	22	8,314	6.47	538.20	250	613½
Maitland's Canary	C.S.H.B. Not yet allotted	9.10.17	273	6	4,065	6.17	250.78	175	286
Maitland's Floss	423	23.1.18	273	15½	5,470	5.49	300.77	200	348
Creamy of Lesterfield	C.S.H.B. Not yet allotted	8.4.18	273	17	5,679	5.08	288.23	175	305½
Creamy II. of Lesterfield	"	5.9.18	273	12	5,190	5.40	280.88	175	319½
Maitland's Duchess of Lesterfield	177	14.9.18	273	14	7,508	4.69	351.89	250	401½
Graceful Countess of Lesterfield	C.S.H.B. Not yet allotted	19.9.18	273	13½	4,776	6.55	312.72	175	356½

Ayrshire—Completed during the year, 1. Certificated, 1.

Princess Mary II. of Strachan	4136	16.10.17	273	15½	8,083	4.01	324.61	250	370
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S. A. JOHNSON, Woodend. (Ayrshire.)**Completed during the year, 3. Certificated, 3.**

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Bountiful of La Motte	5253	6.6.18	273	22	8,739	4.44	388.13	250	442½
Judy of La Motte	5258	8.7.18	273	20½	9,311	4.40	385.44	250	416½
Polly of La Motte	5261	10.9.18	273	9	7,331	4.08	319.71	250	364½

G. A. KENT, Junr., Archie's Creek. (Ayrshire.)**Completed during the year, 5. Certificated, 3.**

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Bud of View Point	2163	2.8.18	273	12½	7,312	4.74	346.45	250	394½
Mermaid II. of Woolamai Park	5273	10.8.18	273	11	6,297	4.96	312.44	250	356½
Dinah of Mapleton	3511	31.8.18	273	14½	6,726	4.80	323.22	200	368½

A. W. JONES, Whittington, Geelong. (Jersey and Friesian.)

Jersey—Completed during the year, 10. Certificated, 10.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk at Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Dolly I. of St. Albans ..	5055	13.10.17	2233	171	4,520	5.99	270.83	175	308.9
Queenie of Holmwood ..	5153	15.12.17	273	14	5,886	5.78	340.05	250	387.7
Lady Grey V. of St. Albans ..	5053	21.12.17	273	11	5,253	5.35	281.01	175	820.1
Bel-o of Colac ..	4024	7.1.18	273	19	5,331	4.19	349.48	250	398
Silver Queen II. of Colac ..	4032	11.1.18	273	284	7,573	6.42	480.44	250	554.4
Lady Grey I. of St. Albans ..	4186	18.4.18	273	221	7,032	6.62	465.58	250	530.1
Fuchsia XIII. of Melrose ..	Not yet allotted	26.5.18	273	231	6,257	5.68	355.17	175	405
Buttercup ..	875	18.8.18	273	20	8,229	4.00	329.04	250	375
Blanchette III. ..	3753	20.8.18	273	18	7,803	5.08	390.57	250	45.6
Blanchette I. of St. Albans ..	5054	28.8.18	273	21	8,257	5.68	469.10	250	534

Friesian—Completed during the year, 3. Certificated, 3.

Bolobek Rose ..	Not yet allotted	18.2.18	273	25	6,837	4.14	284.09	175	323.1
Bolobek Bess ..	..	29.3.18	273	21	9,551	4.25	405.85	200	462.4
May Queen II. ..	..	22.8.18	273	32	11,319	4.50	519.11	200	592

* Sold before completion of test.

C. G. KNIGHT, Cobram. (Jersey.)

Completed during the year, 30. Certificated, 30.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk at Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Idyll's Ideal ..	2096	25.9.17	273	134	6,689	5.90	324.83	250	381.1
Madam Melba of Tarnpirr ..	5161	27.9.17	273	17	6,181	5.91	365.55	175	416.7
Romany Girl ..	5171	18.10.17	273	184	6,243	5.86	369.17	175	417.1
Royal Rose ..	2585	5.11.17	273	21	7,668	6.09	466.90	250	532.1
Tiny of Tarnpirr ..	5172	18.11.17	273	20	5,882	6.45	385.85	175	430.1
Mystic of Tarnpirr ..	5163	22.11.17	273	18	5,842	5.70	332.87	175	379.1
Pauline of Tarnpirr ..	5164	1.1.18	273	204	5,025	5.76	289.39	175	330
Princess of Tarnpirr ..	2989	1.1.18	273	17	7,333	5.01	367.72	250	410.1
Christmas ..	4206	20.2.18	273	18	5,824	6.42	374.16	250	426.1
Miss Fox of Tarnpirr ..	5162	17.3.18	273	26	7,244	5.82	421.57	175	380.1
Postcard of Tarnpirr ..	5167	26.3.18	273	14	4,955	6.81	337.57	175	384.1
Trixie of Tarnpirr ..	5173	26.3.18	273	15	5,476	6.48	355.45	175	405.1
Veronica of Tarnpirr ..	5174	28.3.18	273	224	6,679	6.08	406.63	175	463.1
Rosebud of Tarnpirr ..	4210	31.3.18	273	154	5,879	6.41	376.75	250	429.1
Ringtail of Tarnpirr ..	5170	2.4.18	273	18	6,010	6.32	390.31	175	435.1
My Queen of Tarnpirr ..	4209	2.4.18	263	4	6,456	6.17	398.52	250	434.1
Lady Choice of Tarnpirr ..	5160	2.4.18	273	304	8,007	6.17	493.80	175	563
Princess May of Tarnpirr ..	5168	6.4.18	273	21	7,589	4.98	377.70	200	430.1
Mildred of Tarnpirr ..	2984	12.4.18	273	204	9,000	5.02	455.13	250	518.1
Marie of Tarnpirr ..	Not yet allotted	24.4.18	273	10	4,478	6.30	292.28	175	321.1
Peep-Bo of Tarnpirr ..	5166	29.4.18	273	26	8,705	5.15	448.71	200	511.1
Nimmabel ..	Not yet allotted	22.5.18	273	161	5,757	5.40	311.03	175	354.1
Idyll's Morocco ..	4207	28.6.18	273	16	7,280	5.87	427.27	250	487
Dolly of Tarnpirr ..	1840	24.7.18	273	174	7,985	5.27	419.99	250	478.1
Romany Lass ..	2563	1.8.18	273	15	7,284	5.24	381.97	250	435.1
Sweet Nell ..	Not yet allotted	5.8.18	273	20	7,039	5.68	399.87	175	455.1
Lily of Tarnpirr ..	2221	17.8.18	273	234	8,708	4.72	411.34	250	467
Arcadia ..	1534	21.8.18	273	244	9,817	5.14	504.70	250	575.1
Mythic ..	2404	26.8.18	273	22	9,161	5.32	487.35	250	555.1
Foxglove of Tarnpirr ..	2983	17.9.18	273	16	7,566	6.20	469.45	250	535.1

J. A. LANG, Alvie. (Ayrshire.)

Completed during the year. 1. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Glorious of Retreat	4321	12.8.18	273	lbs. 11	lbs. 7 014	4.73	lbs. 341.94	lbs. 200	lbs. 378½

LEACH BROS., Bingenwarri. (Jersey.)

Completed during the year. 4. Certificated, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Charming Girl	319	25.9.17	273	lbs. 26	lbs. 7,211	5.23	lbs. 377.05	lbs. 200	lbs. 429½
Blackell III.	561	26.9.17	273	19½	6,381	5.06	322.82	173	368
John	447	14.10.17	273	23½	8,048	4.31	385.98	250	440
Mary Flower	463	25.10.17	273	23½	8,575	4.78	400.54	250	487

AGRICULTURAL HIGH SCHOOL, Leongatha. (Jersey.)

Completed during the year. 2. Certificated, 2.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Sunset Star	Not yet allotted	26.10.17	273	lbs. 18	lbs. 6,198	5.98	349.52	175	398½
First Choice	372	23.9.18	247	4	6,599	5.95	392.47	250	447½

LESLIE and GERRAND, Sale. (Ayrshire.)

Completed during the year. 4. Certificated, 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Mistle of Raith	5323	20.6.18	273	lbs. 11½	lbs. 4,285	4.37	lbs. 357.45	lbs. 175	lbs. 213½
Pearced of Raith	5324	1.7.18	273	17	5,027	4.35	219.16	175	219½
Daphne of Raith	5321	3.7.18	273	17½	5,683	4.04	229.42	175	261½
Goldleaf of Raith	5322	29.7.18	*269	14	7,074	4.40	311.67	250	355½

* Record ceased before completion of test.

C. G. LYON, Heidelberg. (Jersey.)

Completed during the year, 44. Certificated, 44.

Name of Cow	Herd Book No.	Date of Calving	No. of days in Test	Weight of Milk, lbs.	Weight of Milk, Hs.	Average Test	Butter Fat	Standard required	Estimated Weight of Butter.
Markar's Petal III. of Banyule	3212	2.10.17	273	141	4.694	5.56	255.85	175	2911
Wolly IV. of Banyule	4246	8.13.17	273	167	8.716	5.10	444.61	250	3603
Parakeet II. of Banyule	5218	11.10.17	273	9	4.493	5.10	229.02	175	261
Majesty's Starbright	1185	11.10.17	273	153	6.493	5.33	346.98	250	3944
Silvermine XII. of Banyule	4250	12.10.17	273	143	6.417	5.03	323.13	200	3684
Golden Dawn	2824	19.10.17	273	167	6.316	5.82	367.50	250	419
Markar's Petal	3038	8.11.17	273	141	6.775	5.88	398.58	250	434
*Thorn III.	3223	15.11.17	273	111	6.361	5.75	365.50	200	4158
*Thorn IV.	5224	2.12.17	273	16	6.682	6.00	400.97	200	457
Magnet's Lass III.	4263	12.12.17	273	203	7.177	5.50	401.45	200	4572
Olive	3971	22.12.17	273	21	8.572	5.09	456.56	250	4673
Melton Musette	3212	28.12.17	273	17	5.069	5.17	309.91	175	3513
Symphony	4281	19.1.18	273	18	5.623	6.03	339.21	250	387
Andrey Lassie	825	21.1.18	273	143	6.919	4.71	325.55	250	371
Ellie V. of Banyule	3201	27.1.18	273	113	4.780	5.14	245.89	175	2804
Starlette	4271	31.1.18	273	22	7.512	5.75	450.36	250	4791
Molly V. of Banyule	5216	6.2.18	273	63	9.181	5.61	346.88	200	3923
Silvermine XIV. of Banyule	5220	12.2.18	273	26	7.708	4.91	380.51	200	437
Molly II.	614	13.2.18	273	17	6.527	5.40	327.07	200	373
Lassie II.	1136	16.3.18	273	193	7.399	4.85	354.87	250	4043
Silvermine XVI. of Banyule	5222	20.3.18	273	15	4.901	5.67	278.05	175	317
Noble Jessie	3513	20.3.18	273	18	6.832	5.29	361.48	250	412
Starbush II.	2915	30.3.18	273	21	7.227	4.99	300.91	250	4111
Bathura IV. of Banyule	5207	2.4.18	273	173	9.729	5.62	378.18	200	431
Soprano	1365	13.4.18	273	43	5.751	5.86	336.83	250	384
Ellie IV.	2489	16.6.18	273	22	9.756	1.98	417.21	250	4753
Bathura V. of Banyule	5208	9.7.18	273	19	7.067	5.22	367.66	200	416
Noble's Pak	4247	15.7.18	273	29	7.517	4.60	378.79	200	432
Chorus	2825	14.6.18	273	203	7.446	5.75	437.50	250	4873
Cambridge	1117	14.6.18	273	26	6.856	1.83	331.18	250	3771
Bathura VI. of Banyule	5209	23.6.18	273	111	4.512	5.27	237.78	175	271
Gem	3331	24.6.18	273	14	6.389	5.87	375.36	250	427
Milkmaid 37th	1222	24.6.18	273	21	8.569	5.06	454.05	250	485
Harp	5206	29.7.18	273	183	6.563	5.24	343.85	200	392
Melodious	2356	12.8.18	273	19	7.903	5.12	401.06	200	4614
Zoe V. of Warradourra	1407	15.8.18	273	10	7.492	5.14	380.42	250	4323
Silvermine XV. of Banyule	5221	24.8.18	273	19	6.348	4.87	309.20	175	3523
Philo	Not yet allocated	29.8.18	273	143	5.053	5.45	275.52	175	314
Zoe VI.	Not yet allocated	29.8.18	273	16	4.629	6.53	302.13	175	3441
Capitol's Vanilla	3330	9.9.18	273	18	7.829	5.02	393.04	250	448
Pretty Peg	5219	12.9.18	273	143	5.560	4.92	273.62	175	3113
Capitol's Thorn	3329	13.9.18	273	112	7.334	5.55	406.87	250	4633
Melodious	Not yet allocated	14.9.18	273	20	6.857	5.50	373.94	175	4204
Mary Ann	Not yet allocated	10.9.18	273	16	6.061	5.51	353.80	175	3801

* In last year's Annual Report this cow's record (as a heifer) appeared under the erroneous name of Thorn II.

† In last year's Annual Report this cow's record (as a heifer) appeared under the erroneous name of Thorn III.

L. McFARLANE, Bundoora. (Ayrshire.)

Completed during the year, 3. Certificated, 3.

Name of Cow	Herd Book No.	Date of Calving	No. of days in Test	Weight of Milk, lbs.	Weight of Milk, Hs.	Average Test	Butter Fat	Standard required	Estimated Weight of Butter.
Ceranium of Seafield	2884	17.7.18	273	5	6.348	4.96	315.21	250	3501
Sylvan Maid of Glen Alvie	5405	24.7.18	273	93	8.451	4.48	377.09	200	4303
Bashful of Winstade	4353	14.8.18	273	12	7.370	1.62	341.31	250	380

C. D. LLOYD, Caulfield. (Jersey.)

Completed during the year, 9. Certified, 9.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk in Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Mercedes Noble Queen (Imp.)	4241	23.10.17	273	23½	8,952	6.09	545.88	250	622½
Ryebread	Not yet allotted	8.8.18	273	13	4,112	5.59	230.07	175	262½
Whitebread	4244	12.8.18	273	15	6,720	5.58	374.94	200	427½
Creamcake	5195	16.8.18	273	15	5,413	6.25	338.88	200	385½
Gingerbread	5197	24.8.18	273	11	4,498	5.91	264.72	200	301½
White Stockings IV. (Imp.)	Not yet allotted	23.8.18	273	15½	7,463	5.43	404.96	250	461½
Golden Noble Duchess	4240	30.8.18	273	6½	6,745	6.16	415.62	250	473½
Chloe	Not yet allotted	31.8.18	273	13	4,991	5.34	266.39	175	303½
Sweetbread X XIV. (Imp.)	2979	1.9.18	273	13	6,912	4.70	324.77	250	370½

J. MACKENZIE, Glenroy. (Jersey.)

Completed during the year, 4. Certified, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk in Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Princess of Kudala	5314	2.1.18	273	7½	3,404	5.34	181.64	175	207
Lady Perfection	4555	4.1.18	273	11	3,413	6.50	221.78	200	252½
Laurie II.	Not yet allotted	8.9.18	233	4	3,363	5.50	184.96	175	210½
Cloverleaf	5179	10.9.18	273	10½	5,925	4.74	281.08	175	320½

T. MESLEY, Dalyston. (Jersey.)

Completed during the year, 16. Certified, 16.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk in Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				lbs.	lbs.		lbs.	lbs.	lbs.
Dunalister's Annie Laurie	5364	24.11.17	*210	17	4,253	5.57	236.04	200	270
Tilly Lantry (late Lily)	5257	10.1.18	240	4	4,911	5.26	258.42	250	294½
Shadow	Not yet allotted	19.2.18	273	10½	4,320	5.79	261.58	175	298½
Philomel	5255	27.1.18	273	27	9,001	4.96	446.74	250	509½
Daisy of Springhurst	1788	7.6.18	273	18½	9,139	5.07	518.12	250	590½
Brighton Peersess	Not yet allotted	23.6.18	273	10	5,360	5.01	269.60	175	306½
Little Queen	5219	17.7.18	273	22	8,631	5.42	467.63	250	533
Garrett II.	5242	23.7.18	273	18	7,263	5.62	408.29	250	465½
Phyllis	5254	8.8.18	273	16	8,330	5.02	417.87	250	476½
Amyke of Springhurst	1315	9.8.18	273	18	8,215	5.26	434.21	250	495
Fairy Belle of Warenda	5241	11.8.18	273	8½	6,226	5.97	371.61	250	423½
Pibroch	5256	30.8.18	273	18½	7,661	5.79	410.29	250	501½
Nanette II.	Not yet allotted	2.9.18	273	7	3,260	6.20	202.04	175	250½
Gazelle	5243	3.9.18	273	23½	9,353	5.22	488.59	250	557
Charmian	5239	7.9.18	273	16½	8,470	5.09	431.13	250	491½
Warenda	5259	13.9.18	273	23	9,967	5.19	517.52	250	590

* Sold before completion of test.

MEIER BROS., Box Hill. (Jersey.)

Completed during the year, 6. Certificated, 6.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Pansy's Promise ..	5239	7.10.17	273	13	lbs. 5,078	4.45	lbs. 235.11	175	2894
Rosetta of Box Hill ..	5234	7.2.18	273	13	5,068	5.29	194.11	175	2211
Lorina's Lady ..	4286	6.8.18	273	26½	8,112	4.92	398.60	250	4544
Flower Girl ..	Not yet allotted	11.9.18	273	17½	5,868	4.71	276.20	175	3144
Pansy's Promise ..	5229	15.9.18*	267	13½	5,659	4.06	281.02	200	3204
Flower Queen ..	4285	21.9.18	273	17½	6,170	4.98	307.37	250	3564

* Record ceased before completion of test.

J. R. MITCHELL, Sandford. (Red Poll.)

Completed during the year, 2. Certificated, Nil.

D. C. MORRISON, Tatura. (Ayrshire.)

Completed during the year, 8. Certificated, 8.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Jessie's Pride of Bundara ..	4263	28.7.18	273	15½	lbs. 8,630	4.12	lbs. 355.29	250	405
Patience of Golden Vein ..	2649	28.7.18	273	10½	6,838	4.48	306.21	250	319
Ethel of Bundara ..	4259	18.8.18	273	5½	4,662	4.58	213.73	175	243
Ethel of Bundara ..	4271	28.8.18	263	4	4,563	3.87	178.40	175	203
Sylvia of Bundara ..	4272	30.8.18	273	9	4,733	3.91	184.00	175	216
Peaceful of Bundara ..	4267	1.9.18	273	19	6,816	3.59	244.74	175	279
Beauty of Bundara ..	4256	22.9.18	221	4	5,405	4.71	254.79	250	2904

MUHLEBACH BROS., Batesford. (Ayrshire.)

Completed during the year, 5. Certificated, 5.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Sweet Marie of Retreat ..	4340	29.9.17	273	9	lbs. 4,477	4.38	lbs. 195.69	175	2253
Daphne of Retreat ..	2939	8.10.17	273	9½	6,343	4.09	259.79	200	298
Lily of Retreat ..	2961	17.1.18	267	4	5,412	4.69	255.11	200	2884
Beauty of Retreat ..	4322	5.8.18	273	9	7,480	4.07	304.70	250	3472
Pansy of Retreat ..	4336	12.9.18	273	6½	5,728	4.86	278.59	200	3174

Mrs. LILIAN ORCHARD, Grahamvale. (Jersey.)

Completed during the year, 4. Certificated 1.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Alice of Grahamvale	5328	1.10.17	273	lbs. 11	4,671	5.39	251.92	250	287
Pansy of Grahamvale	5330	8.1.18	270	9	4,334	5.25	227.47	175	259
Primrose of Jerseyvale	Not yet allotted	22.9.18	273	10½	4,723	5.47	258.16	175	294
Daffodil of Jerseyvale	..	23.9.18	273	11	4,253	5.39	229.41	175	261

W. PARBURY, Warburton. (Jersey.)

Completed during the year, 13. Certificated, 8.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Donaldster's Gem	348	17.10.17	273	lbs. 7½	4,232	6.04	255.84	175	291½
Flower I. of Brookfield	C.S.H.B. 566	24.10.17	273	11½	3,891	5.35	208.49	175	237½
Nancy I. of Brookfield	C.S.H.B. 573	26.10.17	273	7	2,957	6.11	180.73	175	206
Beauty of Brookfield	C.S.H.B. 559	9.11.17	273	10½	1,211	4.56	191.88	175	218½
Jewel of Brookfield	C.S.H.B. 570	11.12.17	273	13	4,336	1.81	210.19	175	239½
Ettie II. of Brookfield	C.S.H.B. 565	21.12.17	273	9½	3,068	5.95	179.96	175	201
Petunia IX. of Melrose	C.S.H.B. 381	5.2.18	273	18	5,704	5.75	327.76	250	377½
Donaldster's Golden Maid	C.S.H.B. 352	1.6.18	270	17	5,978	6.31	377.46	250	430½

Miss BRUCE REID, Bundoora. (Jersey.)

Completed during the year, 4. Certificated, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Reftord Ethel	502	27.8.18*	270	lbs. 12	5,150	5.94	306.12	250	345
Cartoon V.	C.S.H.B. 317	14.9.18	273	19	6,876	5.20	357.32	250	294½
Julilee Daffodil	C.S.H.B. Not yet allotted	15.9.18*	270	14	6,273	5.08	318.35	175	365
Noble's Corquette	..	17.9.18*	270	11	5,036	5.79	291.49	175	332½

* Record ceased before completion of test.

R. RALSTON, Moglemby, Euroa. (Ayrshire.)

Completed during the year, 10. Certificated, 6.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				Lbs.	Lbs.		Lbs.	Lbs.	Lbs.
Lacy of Ben Kell ..	2001	20.6.18	273	51	5,948	4.61	271.09	240	3121
Wee Edna of Ben Kell ..	3026	23.7.18	273	71	5,770	4.43	255.51	200	2011
Alice of Ben Kell ..	3016	3.8.18	273	191	6,867	4.10	287.97	200	3281
Bird of Ben Kell ..	4771	7.8.18	273	7	5,308	4.04	214.49	200	2141
Lady Virtue of Ben Kell ..	4580	22.8.18	273	241	6,778	4.37	296.19	175	3371
Blanche of Ben Kell ..	3047	10.9.18	273	111	6,361	4.13	262.86	250	2991

RYAN and HOWLEY, Axedale. (Ayrshire.)

Completed during the year, 3. Certificated, 2.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				Lbs.	Lbs.		Lbs.	Lbs.	Lbs.
Bonnie Lottie of Meadowbank ..	Not yet allotted	30.10.17	258	4	6,235	4.18	260.80	200	2971
Lottie of Golden Vein ..	3079	20.2.18	273	18	7,921	4.40	348.91	250	3071

J. D. READ, Springhurst. (Jersey.)

Completed during the year, 29. Certificated, 29.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
				Lbs.	Lbs.		Lbs.	Lbs.	Lbs.
Stock of Springhurst ..	5496	5.3.18	*239	11	3,983	5.34	212.31	175	2421
Nightshade of Springhurst ..	3707	7.3.18	273	20	7,955	5.34	425.37	250	4851
Brighton Princess of Springhurst ..	5391	17.3.18	273	131	5,325	5.51	293.18	175	3341
Pimpernel of Springhurst ..	5401	10.3.18	273	121	5,653	5.14	299.79	175	3411
Avenue of Springhurst ..	5386	21.3.18	273	13	5,865	5.46	320.45	175	3651
Princess Regal of Springhurst ..	5403	21.3.18	273	13	5,086	5.79	294.06	175	3351
Columbine of Springhurst ..	5392	26.3.18	273	151	5,106	6.37	325.51	175	3711
Banksia of Springhurst ..	5387	27.3.18	273	111	6,607	6.14	405.67	200	4621
Buttercup of Springhurst ..	5762	4.4.18	273	11	5,063	5.94	354.48	250	4041
Minibus of Springhurst ..	5400	8.4.18	273	10	1,001	6.21	253.88	175	2861
Veronica of Springhurst ..	5407	18.4.18	273	8	6,550	5.75	375.84	200	4281
Cole of Springhurst ..	4379	30.4.18	273	131	6,701	5.91	360.49	240	4111
Tulip of Springhurst ..	2730	3.5.18	273	10	5,331	5.39	492.88	250	3301
Infanta of Springhurst ..	5396	4.5.18	273	71	6,183	5.66	319.87	200	3891
Lois of Springhurst ..	5395	4.5.18	273	121	6,420	5.82	373.80	200	4291
Trefoil of Springhurst ..	4395	5.5.18	273	10	7,052	6.16	434.43	240	4931
Balsam of Springhurst ..	4376	7.5.18	273	4	6,072	5.67	344.72	240	3931
Lotella of Springhurst ..	4386	6.5.18	273	6	6,860	5.30	318.01	240	3621
Crocus of Springhurst ..	5393	11.5.18	273	12	7,027	5.50	302.82	200	4181
Solanum of Springhurst ..	4394	26.5.18	243	4	6,043	1.55	315.66	240	3601
Freecia of Springhurst ..	4382	29.5.18	273	151	7,429	5.91	439.31	250	5001
Czenna of Springhurst ..	4380	30.5.18	255	4	5,961	5.37	320.49	250	3551
Princess of Springhurst ..	2521	4.6.18	262	4	6,621	5.77	368.66	240	4201
Flair-de-l'ys of Springhurst ..	5394	16.6.18	273	141	6,573	4.46	329.73	175	3661
Bellicious of Springhurst ..	5389	1.7.18	273	6	4,451	4.99	422.35	175	2531
Primrose of Springhurst ..	4391	6.7.18	273	61	6,597	5.34	372.20	240	4011
Whitara of Springhurst ..	5409	31.7.18	273	81	5,645	5.06	285.96	175	3261
Jonquil of Springhurst ..	5398	31.7.18	273	91	5,143	6.41	329.55	175	3741
Wattle of Springhurst ..	5408	11.8.18	264	4	6,763	4.73	319.66	200	3641

* Dried off with mammitis.

MISS S. L. ROBINSON, Malvern. (Jersey.)

Completed during the year, 9. Certificated, 8.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Kyora's Pillars	Not yet allotted	14.11.17	273	15	lbs. 5,997	5.33	lbs. 319.76	175	lbs. 364½
Puen Buen Velvet VII.	3973	18.11.17	273	20½	7,786	4.93	383.58	200	437½
Kyora's Lassie	Not yet allotted	5.8.18	273	16	4,721	4.99	235.83	175	268½
Twinkle	518	8.8.18	273	23	7,906	4.15	351.79	250	401
Bedford Twylish	C.S.H.B. 4155	16.8.18	273	10	4,792	5.87	281.47	250	320½
Defender's May III.	Not yet allotted	21.8.18	273	8	4,099	6.22	254.80	175	290½
Charibelle VII.	518	21.8.18	273	13½	4,363	5.30	231.23	175	263½
Puen Buen Needle X.	5435	4.9.18	273	13	4,850	5.90	286.75	200	326½

G. ROWE, Kardella. (Jersey.)

Completed during the year, 7. Certificated, 4.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Princess Dot	497	16.11.17	273	6	lbs. 3,646	6.05	229.72	200	lbs. 251½
Queen Elizabeth	C.S.H.B. Not yet allotted	19.9.18	273	12½	5,448	4.31	234.91	200	267½
Daffodil	157	20.9.18	273	7	6,375	4.42	282.14	250	321½
Ruby	C.S.H.B. 513	22.9.18	270	1	5,446	4.78	255.68	250	291½

A. H. S. SCHIER, Caldermeide. (Ayrshire.)

Completed during the year, 15. Certificated, 11.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Jeanette of Glenzowie	3857	27.9.17	273	10	lbs. 4,985	4.12	lbs. 265.87	200	lbs. 234½
Rosebud II. of Pine Grove	4641	9.11.17	273	18	5,894	4.74	275.44	175	314
Wyrtle II. of Pine Grove	4637	16.3.18	273	22½	6,546	4.30	281.71	175	321½
Countess II. of Pine Grove	4627	27.3.18	273	6½	3,873	5.03	194.85	175	224
Boronia II. of Pine Grove	4626	20.4.18	273	11	5,828	4.61	268.63	175	306½
Primrose II. of Pine Grove	4640	22.4.18	273	13	6,005	4.10	246.32	175	280
Deer of Midburn	4628	29.6.18	273	16½	7,272	4.02	292.08	250	333½
Socks II. of Pine Grove	4643	2.7.18	273	9	7,010	4.06	281.81	175	324½
Nadge II. of Glenzowie	3860	5.8.18	273	19	6,396	4.18	267.34	250	304½
Marguerite of Glenzowie	4632	23.8.18	273	10½	4,757	4.30	254.69	175	253½
Vivie of Balvornie	4634	13.9.18	273	11½	5,663	4.52	256.08	250	291½

S. ROWE, Mt. Eccles. (Jersey.)

Completed during the year, 2. Certificated, 2.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Tiddletwinks II. of Holmwood	5410	11.8.18	273	lbs. 50	lbs. 10,850	5.32	lbs. 576.91	lbs. 250	lbs. 657½
Less Favourite	431	17.9.18	273	18	7,936	4.81	381.77	250	435½
C.S.H.B.									

A. E. SPIERS, Nalangil. (Ayrshire.)

Completed during the year, 13. Certificated, 12.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Pet of Retreat	4337	8.7.18	273	lbs. 173	lbs. 8,798	3.92	lbs. 345.46	lbs. 250	lbs. 303½
Ada of Bhir Alhoi	5060	9.8.18	273	15	3,271	4.18	387.97	250	442½
Pet V. of Ayrshire Bank	5072	28.8.18	273	14	6,418	4.15	265.18	250	392½
Camelia IV. of Ayrshire Bank	5062	28.8.18	273	16	8,317	4.06	407.35	250	404½
Bramble II. of Ayrshire Bank	5061	31.8.18	273	14	8,820	4.39	387.42	250	441½
Folly V. of Ayrshire Bank	5073	3.9.18	273	173	9,206	4.34	403.75	250	400½
Fairy V. of Ayrshire Bank	5064	6.9.18	273	10	8,516	4.03	344.91	250	393½
Marion of Ayrshire Bank	5069	9.9.18	273	13	8,582	4.21	361.15	250	411½
Jessie V. of Ayrshire Bank	5068	15.9.18	223	4	6,803	3.84	292.81	250	299½
Marcella of Ayrshire Bank	3259	20.9.18	273	20	10,026	3.98	390.21	250	445½
Jewel of Ayrshire Bank	5067	21.9.18	273	21	8,305	3.67	305.21	250	347½
Marjotene of Retreat	2062	24.9.18	249	4	7,957	3.85	306.43	250	349½

D. G. TOMPKINS, Coleraine. (Jersey.)

Completed during the year, 3. Certificated, 3.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
* Molly of Clover Flat	5487	15.7.18	273	lbs. 10	lbs. 6,510	6.20	lbs. 495.81	lbs. 175	lbs. 400½
† Jessie IV. of Clover Flat	5485	18.7.18	273	15	5,842	1.95	294.58	175	355½
‡ Mary VII. of Birville	4164	28.7.18	273	11	6,976	5.29	247.23	250	395½

* Calved 87 days before first test taken. † Calved 84 days before first test taken. ‡ Calved 74 days before first test taken.

G. H. WINDSOR, Pakenham. (Jersey.)

Completed during the year, 3. Certificated, 3.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Vanilla VIII. of Melrose	5565	20.3.18	273	lbs. 17	lbs. 6,427	5.98	lbs. 384.48	lbs. 200	lbs. 428½
Perl IV. of Melrose	5556	26.5.18	273	17	6,681	6.06	404.81	200	401½
Jessie XVIII. of Melrose	Not yet allotted	31.8.18	262	4	4,166	5.86	244.16	200	278½

O. J. SYME, Macedon. (Friesian.)

Completed during the year, 14. Certificated, 14.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Bolobek Lass	Not yet allotted	4.10.17	273	lbs. 21	lbs. 9,055	3.53	lbs. 319.42	lbs. 175	lbs. 364½
Bolobek Ethel	..	9.10.17	273	101	9,538	4.06	397.19	250	441½
Princess Ema	..	20.11.17	273	17	10,419	3.48	384.45	250	384½
Queen of Friesland Park	..	7.12.17	273	18	8,851	3.81	337.34	250	384½
Duchess of Friesland Park	..	3.1.18	273	32	8,040	3.62	291.53	250	382½
Dominus's Hereward Belle	..	13.1.18	273	21	8,151	3.81	310.83	200	344½
Bolobek Jean	..	18.2.18	273	191	6,113	3.89	219.29	175	287
Paul of Friesland Park	..	1.4.18	273	24½	8,396	3.51	295.17	250	387
Jennie de Kool	..	1.5.18	273	32	9,428	3.69	348.02	250	396½
Bolobek Polly Gray	..	23.6.18	273	321	11,367	3.69	419.42	200	473
Bolobek May	..	10.8.18	273	23	10,748	3.72	392.51	200	447½
Bolobek Isabella	..	20.8.18	273	214	9,786	3.52	337.08	200	345
Bolobek Annie	..	12.9.18	273	25½	9,583	4.33	117.43	175	473½
Bolobek Belleff	..	13.9.18	273	24½	10,717	5.03	391.29	250	416

E. WISEMAN, Balwyn. (Jersey.)

Completed during the year, 1. Certificated, 1.

Name of Cow	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Princess Lady H.	5280	24.9.18	273	lbs. 11	lbs. 4,349	5.06	lbs. 219.99	lbs. 200	lbs. 250½

W. WOODMASON, Malvern. (Jersey.)

Completed during the year, 58. Certificated, 58.

Name of Cow.	Herd Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Last Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Lady Elector II. of Melrose	5548	24.9.17	273	lbs. 15	lbs. 6,558	6.02	lbs. 394.51	lbs. 250	lbs. 449½
Chevy IX. of Melrose	Not yet allotted	1.10.17	273	13	5,081	5.74	291.81	175	332½
Carrie VI. of Melrose	5554	4.10.17	273	111	5,246	6.33	332.27	175	378½
Mystery XV. of Melrose	5554	21.10.17	273	111	4,432	5.66	251.27	200	286½
Gaiety Gini VIII. of Melrose	5537	2.11.17	273	14	6,829	5.51	378.28	250	429
Peerless IX. of Melrose	5558	4.11.17	273	7½	4,774	5.40	257.91	250	294
Peerless XII. of Melrose	Not yet allotted	12.11.17	273	15	5,042	6.02	303.71	175	346½
Daisy VII. of Melrose	5532	13.11.17	273	18	6,375	5.57	355.40	200	405½
Lady Elector III. of Melrose	5549	19.11.17	273	13	5,470	6.15	336.51	200	382½
Chevy VI I. of Melrose	4511	24.11.17	273	18½	6,271	5.78	302.24	250	412
Rarity VI I. of Melrose	5560	27.11.17	273	21	8,890	6.60	425.13	200	484½
Daisy VI. of Melrose	4512	4.12.17	273	12½	7,084	5.19	307.48	250	419
Pearl II. of Melrose	3670	6.12.17	273	30½	6,407	5.28	356.93	250	364
Mermaid IV. of Melrose	Not yet allotted	8.12.17	273	15½	6,084	6.16	374.71	175	427½
Flower XI. of Melrose	5559	12.12.17	273	14	5,551	6.40	342.34	175	390½
Rarity VII. of Melrose	5559	24.12.17	273	19	6,190	5.25	324.87	250	370½
Peerless VI. of Melrose	3671	16.12.17	273	10½	7,434	6.03	448.15	250	511
Jessie V. of Melrose	3652	16.12.17	273	10½	5,504	5.15	283.39	250	323
Chevy VI. of Melrose	3685	24.12.17	273	22½	7,530	4.79	361.08	250	411½

W. WOODMASON, Malvern—continued.

Name of Cow.	Milk Book No.	Date of Calving.	No. of Days in Test.	Weight of Milk Test Day of Test.	Weight of Milk.	Average Test.	Butter Fat.	Standard required.	Estimated Weight of Butter.
Jessie VI. of Melrose	4519	25.12.17	273	271	8.479	6.39	541.00	2.0	617½
Fassie Fowler V. of Melrose	5550	2.1.18	273	17	4.670	5.90	270.92	250	319
Flower IX. of Melrose	5535	17.1.18	273	201	5.335	6.27	334.69	200	381½
Qualify VI. of Melrose	3674	17.1.18	273	301	9.401	4.99	460.31	2.0	535
Phelisa X. of Melrose	4516	19.1.18	273	171	8.209	4.63	379.98	2.0	433½
Handsome Girl VII. of Melrose	5541	21.1.18	273	18	6.339	6.78	430.80	2.0	491
Mystery XII. of Melrose	3667	22.1.18	273	201	6.974	5.37	383.00	2.0	436½
Pearl V. of Melrose	5557	1.2.18	273	131	4.965	5.83	289.24	200	330
Jessie's Progress	3857	9.2.18	273	171	5.880	6.07	357.11	2.0	407
Lily VI. of Melrose	5552	11.2.18	265	141	5.110	7.05	360.01	2.0	410
Daisy V. of Melrose	3617	3.3.18	273	131	5.773	5.23	302.16	2.0	344½
Maria V. of Melrose	4524	6.3.18	240	221	6.479	5.37	349.16	2.0	397
Flower VI. of Melrose	3641	8.3.18	273	27	7.933	5.55	439.21	2.0	500½
Jessie XVI. of Melrose	5547	21.3.18	225	181	5.236	6.26	328.80	2.0	373
Burly VI. of Melrose	3675	4.3.18	273	10	6.727	3.44	364.91	2.0	417
Jenny Lind X. of Melrose	Not yet allotted	14.4.18	273	241	7.445	5.74	427.10	2.0	487
Graceful Duchess XIV. of Melrose	5540	30.5.18	273	171	6.632	6.50	431.02	200	491½
Euphie VI. of Melrose	5534	20.6.18	273	18	7.639	6.28	479.89	250	547
Jessie IX. of Melrose	3654	20.6.18	243	161	6.656	5.35	355.98	250	405½
Blossom IV. of Melrose	5531	1.7.18	273	191	7.575	5.16	300.71	250	445½
Emiline IV. of Melrose	3639	4.7.18	273	181	7.416	4.50	307.31	2.0	432½
Laura VI. of Melrose	3658	15.7.18	273	14	6.227	5.56	346.03	250	394½
Pearl III. of Melrose	4526	15.7.18	273	19	7.226	6.60	481.31	250	548½
Waverley Lass III. of Melrose	Not yet allotted	17.7.18	273	15	5.095	6.87	350.30	200	399½
Jessie XVII. of Melrose	4520	24.7.18	273	18	7.138	6.09	434.54	250	495½
Jessie XIV. of Melrose	5545	3.8.18	261	4	5.717	5.73	327.87	250	373½
Laura IX. of Melrose	5551	3.8.18	273	13	6.048	6.03	304.81	250	415½
Jessie XVII. of Melrose	Not yet allotted	8.8.18	273	131	4.315	7.49	323.33	200	368½
Jenny Lind IX. of Melrose	5543	18.8.18	273	17	6.584	6.02	396.72	250	452½
Graceful Duchess X. of Melrose	3646	20.8.18	273	20	7.123	6.29	448.98	250	511½
Jessie XV. of Melrose	5546	24.8.18	273	10	5.473	6.45	310.71	250	390½
Mystery XVII. of Melrose	Not yet allotted	31.8.18	273	141	5.411	6.24	337.54	175	364½
Sweet Pansy III. of Melrose	5562	1.9.18	273	9	3.931	6.48	254.82	250	290½
Emiline V. of Melrose	4515	4.9.18	273	16	7.733	5.28	409.37	250	466½
Vanilla XI. of Melrose	Not yet allotted	7.9.18	273	151	5.068	5.97	302.82	175	345½
Vanilla V. of Melrose	3673	12.9.18	273	15	9.154	4.69	429.57	250	480½
Jessie XIII. of Melrose	5544	13.9.18	273	18	7.324	6.25	457.51	250	521½
Chevy IX. of Melrose	Not yet allotted	20.9.18	273	141	6.143	5.87	360.54	200	411
Fassie Fowler IV. of Melrose	4522	21.9.18	273	201	9.001	5.24	471.99	250	538

* Sold before completion of term. † Died before completion of term

HERD AVERAGES.

Mr. C. G. KNIGHT'S "Tarnpinn" Jersey Herd.

Cows in Herd in their Respective Classes.	Butter Fat.	Average per Cow.
14 Mature Cows yielded	5,876.28	179.73
2 Second calf Cows yielded	826.41 lbs.	413.20
Handicap of 50 lbs. each	109.00 "	
14 Heifers yielded	5,128.34 lbs.	366.31
Handicap of 75 lbs. each	1,050.00 "	
	6,178.34	
Return without herd allowance	12,981.03	432.70
39 Cows in herd allowed 15 lbs. each (the ½ lb. allowance per cow)	450.00	
Herd Total (including all handicap allowances)	13,431.03	447.70

Mr. W. WOODMASON'S "Melrose" Jersey Herd.

Cows in Herd in their Respective Classes.				Butter Fat.	Average per Cow.
				<i>lbs.</i>	<i>lbs.</i>
36 Mature Cows yielded	..	..	..	13,903.73	386.21
11 Second-calf Cows yielded	..	..	..	..	353.14
Handicap of 50 lbs. each	..	..	..	550.00	..
				4,434.53	..
7 Heifers yielded	..	..	..	2,285.20 lbs.	326.46
Handicap of 75 lbs. each	..	..	..	525.00	..
				2,810.20	..
Return (without herd allowance)	..			21,148.46	391.64
54 Cows in herd allowed 27 lbs. each (the $\frac{1}{2}$ lb. allowance per row)				1,458.20	..
Herd Total (including all handicap allowances)	..	..	..	22,606.46	418.64

Mr. T. MESLEY'S "Warenda" Jersey Herd.

Cows in Herd in their Respective Classes.				Butter Fat.	Average per Cow.
				<i>lbs.</i>	<i>lbs.</i>
12 Mature Cows yielded	..	..	..	5,290.41	433.37
3 Heifers yielded	..	..	..	742.22 lbs.	244.07
Handicap of 75 lbs. each	..	..	..	225.00	..
				957.22	..
Return (without herd allowance)				6,147.63	410.50
15 Cows in herd allowed 7 $\frac{1}{2}$ lbs. each (the $\frac{1}{2}$ lb. allowance per cow)				112.50	..
Herd Total (including all handicap allowances)	..	..	..	6,270.13	418.00

Mr. C. G. LYON'S "Banyule" Jersey Herd.

Cows in Herd in their Respective Classes.				Butter Fat.	Average per Cow.
				<i>lbs.</i>	<i>lbs.</i>
22 Mature Cows yielded	..	..	..	8,329.19	380.92
10 Second-calf Cows yielded	..	..	..	3,689.84 lbs.	363.95
Handicap of 50 lbs. each	..	..	..	500.00	..
				4,189.84	..
12 Heifers yielded	..	..	..	3,427.76 lbs.	285.65
Handicap of 75 lbs. each	..	..	..	900.00	..
				4,327.76	..
Return (without herd allowance)	..	..	..	16,897.79	384.04
44 Cows in herd allowed 22 lbs. each (the $\frac{1}{2}$ lb. allowance per cow)	..			968.00	..
Herd total (including all handicap allowances)	..	..	..	17,865.79	406.04

Mr. J. D. READ'S "Springhurst" Jersey Herd.

Cows in Herd in their Respective Classes.	Butter Fat.	Average per Cow.
	lbs.	lbs.
12 Mature Cows yielded	4,331.60	360.97
4 Second-calf Cows yielded	2,217.66 lbs.	369.61
Handicap of 50 lbs. each	300.00 "	
	2,517.66	
10 Heifers yielded	2,936.76 lbs.	293.68
Handicap of 75 lbs. each	750.00 "	
	3,686.76	
Return (without herd allowance)	10,539.02	376.29
28 Cows in herd allowed 14 lbs. each (the $\frac{1}{4}$ lb. allowance per cow)	392.00	
Herd total (including all handicap allowances)	10,928.02	390.29

Mr. O. J. SYME'S "Bolobek" Friesian Herd.

Cows in Herd in their Respective Classes.	Butter Fat.	Average per Cow.
	lbs.	lbs.
7 Mature Cows yielded	2,435.20	347.00
4 Second-calf Cows yielded	1,460.24 lbs.	365.06
Handicap of 50 lbs. each	200.00 "	
	1,660.24	
3 Heifers yielded	986.11 lbs.	328.71
Handicap of 75 lbs. each	225.00 "	
	1,211.11	
Return (without herd allowance)	5,306.67	379.04
14 Cows in herd allowed 7 lbs. each (the $\frac{1}{4}$ lb. allowance per cow)	98.00	
Herd total (including all handicap allowances)	5,404.67	366.04

Mr. A. SPIERS' "Blair Athol" Ayrshire Herd.

Cows in Herd in their Respective Classes.	Butter Fat.	Average per Cow.
	lbs.	lbs.
13 Mature Cows yielded	3,781.64	343.79
1 Second-calf Cow yielded	399.21 lbs.	399.21
Handicap of 50 lbs.	50.00 "	
	419.21	
Return (without herd allowance)	4,200.85	352.57
12 Cows in herd allowed 6 lbs. each (the $\frac{1}{4}$ lb. allowance per cow)	72.00	
Herd total (including all handicap allowances)	4,302.85	358.57

GEE LONG HARBOUR TRUST "Sparrovale" Ayrshire Herd.

Cows in Herd in their Respective Classes.		Butter Fat.	Average per Cow.
		lbs.	lbs.
8 Mature Cows yielded	.. .. .	2,737.96	342.24
1 Second-calf Cow yielded	.. .. .	299.47 lbs.	299.47
Handicap of 50 lbs.	.. .. .	50.00 ..	
		349.47	
6 Heifers yielded	.. .. .	1,791.23 lbs.	283.54
Handicap of 75 lbs. each	.. .. .	450.00 ..	
		2,151.23	
Return (without herd allowance)	.. .. .	5,238.66	349.24
15 Cows in herd allowed 7½ lbs. each (the ½ lb. allowance per cow)	.. .. .	112.50	
Herd total (including all handicap allowances)	.. .. .	5,351.16	356.74

AGRICULTURAL DEPARTMENT'S "Research Farm" Red Poll Herd.

Cows in Herd in their Respective Classes.		Butter Fat.	Average per Cow.
		lbs.	lbs.
26 Mature Cows yielded	.. .. .	8,638.64	332.25
3 Second-calf Cows yielded	.. .. .	926.05 lbs.	308.68
Handicap of 50 lbs. each	.. .. .	150.00 ..	
		1,076.05	
4 Heifers yielded	.. .. .	972.23 lbs.	243.57
Handicap of 75 lbs. each	.. .. .	300.00 ..	
		1,272.23	
Return (without herd allowance)	.. .. .	10,986.92	332.94
33 Cows in herd allowed 16½ lbs. each (the ½ lb. allowance per cow)	.. .. .	544.50	
Herd total (including all handicap allowances)	.. .. .	11,531.42	349.44

Mr. A. H. SCHIER'S "Inverleigh" Ayrshire Herd.

Cows in Herd in their Respective Classes.		Butter Fat.	Average per Cow.
		lbs.	lbs.
3 Mature Cows yielded	.. .. .	816.10	272.03
1 Second-calf Cow yielded	.. .. .	205.87 lbs.	205.87
Handicap of 50 lbs.	.. .. .	50.00 ..	
		255.87	
7 Heifers yielded	.. .. .	1,756.45 lbs.	250.89
Handicap of 75 lbs. each	.. .. .	325.00 ..	
		2,281.45	
Return (without herd allowance)	.. .. .	3,353.42	304.86
11 Cows in herd allowed 5½ lbs. each (the ½ lb. allowance per cow)	.. .. .	60.50	
Herd total (including all handicap allowances)	.. .. .	3,413.92	310.36

COWS IN ORDER OF MERIT.

Cows over 4 Years of Age or on Third Lactation Period—250 lbs. Standard.

	Name	Herd Book No.	Owner.	Breed.	Milk.	Average test.	Butter Fat.	Sire.
1	Tiddiewinks II. of Holmwood	3440	S. Rowe	Jersey	lbs. 13,850	5.32	567.91	
2	Mercedes Noble Queen	4241	C. D. Lloyd	"	8,932	6.09	545.88	Noble of Oaklands
3	Jessie VI. of Melrose	4519	W. Woodmason	"	8,479	6.39	541.60	Wild Rover
4	Graceful Duchess XI.	394	A. Jackson	"	8,314	6.47	538.20	Mystery's Son of Melrose
	C.S.J.H.B.							
5	Daisy of Springhurst	1783	T. Mesley	"	9,139	5.67	548.12	Captive
6	Warenda	5239	"	"	9,987	5.49	547.82	Quickstep
7	Arcadia	1534	C. G. Knight	"	9,817	5.14	504.70	Starbright's V. Twyllish
8	Gazelle	5243	T. Mesley	"	9,353	5.22	488.59	Silver Fox
9	Mythic	2404	C. G. Knight	"	9,161	5.32	487.53	Starbright's V. Twyllish
10	Silver Queen II. of Colac	4032	A. W. Jones	"	7,773	6.42	486.44	Queen's Boy
11	Pearl III. of Melrose	4526	W. Woodmason	"	7,226	6.60	481.31	Pretty Noble (Imp.)
12	Empire VI. of Melrose	5534	W. Woodmason	"	7,639	6.28	479.80	Pretty Noble (Imp.)
13	Lassie Fowler IV. of Melrose	4523	W. Woodmason	"	9,001	5.24	471.90	Pretty Noble (Imp.)
14	Foxglove of Tarnpitt	2383	C. G. Knight	"	7,566	6.20	460.45	Morocco's Carnation
	C.S.J.H.B.							
15	Quality VI. of Melrose	3674	W. Woodmason	"	9,401	4.99	469.31	Fox
16	Blanchette I. of St. Albans	5054	A. W. Jones	"	8,237	5.68	469.10	Sweet Fox
17	Little Queen	8249	T. Mesley	"	8,631	5.12	467.63	Foxy Boy
18	Lady Grey I. of St. Albans	4186	A. W. Jones	"	7,032	6.02	465.56	Guarantee's Antimony
19	Jessie XIII. of Melrose	5544	W. Woodmason	"	7,324	6.25	457.51	Pretty Noble (Imp.)
20	Mistletoe of Tarnpitt	2984	C. G. Knight	"	9,050	5.02	455.15	Starbright's V. Lord
21	Mystery XIV. of Melrose	452	A. Jackson	"	9,631	4.69	454.66	Twyllish
22	Cutty		Department of Agriculture	Red Poll	9,668	4.69	453.73	Jessie IV., Son of Melrose
23	Lotus Flower	4605	H. Bidgood	Jersey	7,585	5.95	451.12	Nicotine
24	Graceful Duchess X. of Melrose	3646	W. Woodmason	"	7,124	6.29	448.58	Northwood King (Imp.)
25	Maid of Sparrovale	3900	Geelong Harbor Trust	Ayrshire	9,733	4.60	448.28	Jessie IV., Son of Melrose
26	Peerless VI. of Melrose	3671	W. Woodmason	Jersey	7,434	6.03	445.15	Statesman
27	Royal Rose	2585	C. G. Knight	"	7,668	6.09	446.90	Step Out
28	Philomel	5255	T. Mesley	"	9,001	4.96	446.74	Snake
29	Molly IV. of Banyule	4246	C. G. Lyon	"	8,716	5.10	444.61	Falcon
	C.S.J.H.B.							
30	Vanity of Warrook	2346	W. C. Greaves	Ayrshire	9,068	4.44	442.66	Starbright's V. Lord
31	Pibroch	5246	T. Mesley	Jersey	7,661	5.73	440.28	Twyllish
32	Freesia of Springhurst	4382	J. D. Read	"	7,429	5.91	439.31	Aller's Jamie of Oakbank
33	Flower VI. of Melrose	3641	W. Woodmason	"	7,893	5.55	439.23	Skin
34	Olive	2971	C. G. Lyon	"	8,572	5.09	436.55	Young Defiance
35	Jessie XII. of Melrose	4530	W. Woodmason	"	7,138	6.09	434.54	Royal Blue
36	Trefoil of Springhurst	4395	J. D. Read	"	7,052	6.16	434.43	Topas Defender
37	Aisley of Springhurst	1515	T. Mesley	"	8,215	5.28	434.21	Pretty Noble (Imp.)
38	Morven Rose VI.		W. K. Atkinson	Shorthorn	10,624	4.06	431.70	Brighton Cub
39	Charmkin	5239	T. Mesley	Jersey	8,470	5.00	431.13	Graceful Lad of Melrose
40	Blondome Girl VII. of Melrose	5541	W. Woodmason	"	6,339	6.78	430.80	Lord Weston 46th
41	Vanilla V. of Melrose	3678	W. Woodmason	"	9,154	4.69	429.57	Silver Fox
42	Chorus	2823	C. G. Lyon	"	7,446	5.75	427.50	Pretty Noble (Imp.)
43	Idyll's Morocco	4207	C. G. Knight	"	7,280	5.87	427.27	Wild Rover
44	Nightshade of Springhurst	3707	J. D. Read	"	7,855	5.34	425.37	Noble Lord
45	Fuchsia of Warrook	2544	W. C. Greaves	Ayrshire	10,056	4.23	425.35	Morocco's Carnation
	C.S.J.H.B.							
46	Milkmaid 37th	1822	C. G. Lyon	Jersey	8,369	5.05	424.05	Aller's Jamie of Oakbank
47	Starlette	4254	C. G. Lyon	"	7,312	5.75	420.36	Brighton Prince
48	Dolly of Tarnpitt	1840	C. G. Knight	"	7,061	5.27	419.99	Starbright's Fox
49	Phyllis	5254	T. Mesley	"	8,320	5.02	417.87	Progression
50	Erlie IV.	2889	C. G. Lyon	"	9,756	4.99	417.21	Skin
51	Golden Noble Duchess	4240	C. D. Lloyd	"	6,745	6.16	415.62	Twyllish's Pride
52	Roxella II. of Kingsvale	4883	Department of Agriculture	"	7,219	5.69	411.60	Twyllish's Noble
	C.S.J.H.B.							
53	Ivy of Tarnpitt	2221	C. G. Knight	"	8,709	4.72	411.31	Golden Fern's Noble
54	Empire V. of Melrose	4515	W. Woodmason	"	7,753	5.28	409.57	Canary's Lad VIII.
55	Mayflower	463	Leach Bros.	"	8,575	4.78	409.54	Starbright's V. Twyllish
	C.S.J.H.B.							
56	Garene II.	5242	T. Mesley	"	7,263	5.02	408.29	Pretty Noble (Imp.)
57	Caueilla IV. of Ayrshire Bank	5982	A. E. Spers	Ayrshire	8,217	4.96	407.35	Carnation's Fox (Imp.)

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—continued.

No.	Name.	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
58	Captor's Thora ..	3329	C. G. Lyon ..	Jersey ..	7,334	5-55	406-87	Captor
59	Serbia ..	..	Department of Agriculture	Red Poll	10,036	4-05	406-58	Rodger
60	Whitestockings IV. ..	..	C. D. Lloyd ..	Jersey ..	7,463	5-43	404-06	Cowslips Golden Nose
61	Melrose ..	2336	C. G. Lyon ..	..	7,903	5-12	404-68	Starbright's Fox
62	Polly V. of Ayrshire Bank ..	3973	A. E. Spiers ..	Ayrshire ..	9,296	4-34	403-75	Luminous of Oakbank
63	Marjorie of Langley Park ..	2839	Executors late J. Culley	..	10,137	3-96	401-49	Royalty of Rythdale
64	Lotina's Lady ..	4286	Meier Bros. ..	Jersey ..	8,112	4-02	398-90	Lotina's Lady-springs 1st
65	Mulhards' Petal ..	3338	C. G. Lyon ..	..	6,775	5-88	398-58	Navigator
66	My Queen of Tarnpitt ..	4209	C. G. Knight ..	..	6,436	6-17	398-52	Morocco's Carnation
67	Empire IV. of Melrose ..	3659	W. Woodmason ..	..	7,416	4-38	397-31	Royal Blue
68	Jenny Lind IX. of Melrose ..	5513	W. Woodmason ..	..	6,584	6-02	396-72	Pretty Noble (Imp.)
69	Blanchette III. ..	3753	A. W. Jones ..	..	7,803	5-08	395-57	Garnetts Antimony
70	Lady Marce IV. ..	4101	T. Harvey ..	..	6,294	6-30	395-40	Sweet Fox
71	Lady Elector II. of Melrose ..	5548	W. Woodmason ..	..	6,558	6-02	394-51	Pretty Noble (Imp.)
72	Captor's Vankh ..	3330	C. G. Lyon ..	..	7,829	5-02	393-04	Captor
73	First Choice ..	372	C.S.J.H.B. Leungath High School	..	6,590	5-95	392-17	Black Prince
74	Bolobek Belle ..	..	O. J. Syme ..	Friesian	10,747	3-64	391-29	King Isabella Walker
75	Blossom IV. of Melrose ..	5551	W. Woodmason ..	Jersey ..	7,575	5-16	390-75	Pretty Noble (Imp.)
76	Latsala ..	..	Department of Agriculture	Red Poll	8,216	4-75	390-37	Nicotine
77	Bountiful of La Motte ..	5253	S. A. Johnson ..	Ayrshire ..	8,779	4-44	388-12	Lorchivar of Prior Farm
78	Adn of Wain Athol ..	5060	A. Spiers ..	..	9,274	4-18	387-97	Lure of Oakbank
79	Bramble II. of Ayrshire Bank ..	5061	A. Spiers ..	..	8,820	4-39	387-42	Vanthe of Ayrshire
80	Bolobek Ethel ..	..	O. J. Syme ..	Friesian	9,538	4-06	387-19	Rag Apple Korndyk
81	Baroness of Wyuna ..	4581	Department of Agriculture	Jersey ..	6,812	5-68	385-97	Beatrice IV.'s Fox
82	Lotus ..	447	Leach Bros. ..	..	8,948	4-21	385-98	Audrey's Lad
83	Princess Emma ..	..	C.S.J.H.B. O. J. Syme ..	Friesian	10,449	3-63	384-45	Duplicate Posch
84	Tough ..	..	Department of Agriculture	Red Poll	8,841	4-34	383-83	Honingham Archibald
85	Bluebell of Glen Elgin ..	1806	Geelong Harbor Trust	Ayrshire ..	8,517	4-50	383-32	Glen Elgin's Jamie
86	Mystery XII. of Melrose ..	3667	W. Woodmason ..	Jersey ..	6,871	5-57	383-09	Mystery's Son of Melrose
87	Miria ..	..	Department of Agriculture	Red Poll	7,006	5-42	383-04	Redman
88	Romany Lass ..	2563	C. G. Knight ..	Jersey ..	7,284	5-24	381-97	Starbright's V. Twiss
89	Lass' Favourite ..	431	S. Rowe ..	..	7,336	4-81	381-77	Lotina's Larkspur
90	Zoe V. of Warragoburra ..	1497	C. C. Lyon ..	..	7,402	5-14	380-42	Starbright's Fox
91	Fuchsia X. of Melrose ..	4516	W. Woodmason ..	..	8,260	4-63	379-98	Mystery's Son of Melrose
92	Dunallter Golden Maid ..	352	W. Parbury ..	..	5,978	6-31	377-46	Obelisk
93	Rosebud of Tarnpitt ..	4210	C. G. Knight ..	..	5,879	6-41	376-75	Morocco's Carnation
94	Gaiety Girl VIII. of Melrose ..	5537	W. Woodmason ..	..	6,829	5-51	376-28	Pretty Noble (Imp.)
95	Cora ..	3331	C. G. Lyon ..	..	6,389	5-87	375-36	Captor
96	Christmas of Tarnpitt ..	1206	C. G. Knight ..	..	5,824	6-42	374-16	Morocco's Carnation
97	Goldbra ..	..	Department of Agriculture	Red Poll	7,912	4-72	373-15	Nicotine
98	Fairy Bel. of Warendah ..	5241	T. Macley ..	Jersey ..	6,222	5-07	371-61	Foxy Boy
99	Princess of Springhurst ..	2324	J. D. Read ..	..	6,621	5-57	368-66	Grateful Lord of Melrose
100	Princess of Tarnpitt ..	2986	C. G. Knight ..	..	7,333	5-01	367-72	Starbright's V. Twiss
101	Colleen Bawn ..	2424	C. G. Lyon ..	..	6,516	5-82	367-50	Noble Lord (Imp.)
102	Daisy VI. of Melrose ..	4512	W. Woodmason ..	..	7,984	5-19	367-48	Mystery's Son of Melrose
103	Dolly of Clydesbank II. ..	3742	Mrs. A. Black ..	..	5,760	6-35	366-01	Favourite's Fox I
104	Barry VI. of Melrose ..	3675	W. Woodmason ..	..	6,727	5-44	365-91	Wild Rover
105	Judy of La Motte ..	5258	S. A. Johnson ..	Ayrshire ..	8,211	4-40	365-11	Lorchivar of Prior Farm
106	Marian of Ayrshire Bank ..	5969	A. Spiers ..	..	8,382	4-21	365-15	Luminous of Ayrshire Bank
107	Laura IX. of Melrose ..	5551	W. Woodmason ..	Jersey ..	6,048	6-03	364-81	Pretty Noble (Imp.)
108	Chery VIII. of Melrose ..	4511	W. Woodmason ..	..	6,271	5-78	362-29	Pretty Noble (Imp.)
109	Clover of Sparrowale ..	2872	Geelong Harbor Trust	Ayrshire ..	7,142	5-07	362-02	Glen Elgin's Rose

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—continued.

No.	Name	Head Book No.	Owner.	Breed.	Milk.	Butter Fat.	Sire
117	Noble Jessie ..	2813	C. G. Lyon ..	Jersey ..	6,832	5-29 561-48	Noble Lord (Imp.)
118	Chevy VI. of Melrose ..	3645	W. Woodmason ..	" ..	7,530	4-29 561-08	Step Out
119	Starfinch II. ..	2915	C. G. Lyon ..	" ..	7,227	4-09 560-91	Combination Jack
120	Cobra of Springhurst ..	4379	J. D. Read ..	" ..	6,791	5-31 560-29	Brighton Cub
121	Birdseye ..	..	Department of Agriculture ..	Red Poll ..	7,202	5-10 560-31	Talacum
122	Europa ..	..	Department of Agriculture ..	" ..	8,436	4-27 560-11	Madman
123	Carlton V. ..	317	Miss Bruce Rich ..	Jersey ..	6,876	5-20 557-32	Strack o' Light
124	Kirsty V. ..	C.S.J.H.B. 4100	T. Harvey ..	" ..	6,180	5-78 557-15	Sweet Fox
125	Jessie's Progress ..	2657	W. Woodmason ..	" ..	5,880	6-07 557-11	Lady Snigrior's Progress
126	Perla ..	..	Department of Agriculture ..	Red Poll ..	7,519	5-74 556-29	Prince of Wales
127	Jessie IX. of Melrose ..	3654	W. Woodmason ..	Jersey ..	6,656	5-35 555-98	Wild Rover
128	Jessie's Pride of Dundra ..	4263	D. C. Morrison ..	Ayrshire ..	8,630	4-12 555-29	Isabel's Pride of Glen
129	Lassie II. ..	1136	C. G. Lyon ..	Jersey ..	7,300	4-83 554-87	Brighton King
130	Whitercup of Springhurst ..	3702	J. D. Read ..	" ..	5,963	5-04 554-48	Young Deborah
131	Pride of Rocklands ..	4719	Dr. S. S. Cameron ..	" ..	7,003	5-04 553-00	Planet's Prince II
132	Primrose of Springhurst ..	1591	J. D. Read ..	Red Poll ..	6,997	5-34 552-29	Brighton Cub
133	La Belle France ..	..	Department of Agriculture ..	" ..	8,005	4-35 552-05	Rodger
134	Maitland's Duchess of Listerfield ..	177	A. Jackson ..	Jersey ..	7,508	4-60 551-80	Magnus's Maitland
135	Twinkle ..	C.S.J.H.B. 538	Miss S. L. Robinson ..	" ..	7,906	4-45 551-76	Starbright's Lord Twy
136	Annie of Tarlana ..	4923	C. Falkenberg ..	" ..	6,265	5-61 551-48	Golden Spark
137	Jessie XV. of Melrose ..	5536	W. Woodmason ..	" ..	5,433	6-45 550-71	Pretty Noble (Imp.)
138	Belle of Colar ..	4024	A. W. Jones ..	" ..	8,331	4-19 549-48	Handsome Progress
139	Lottie of Golden Vein ..	3079	Ryan and Hawkey ..	Ayrshire ..	7,921	4-40 548-91	Aulifer of Onklank
140	Mates V. of Melrose ..	4524	W. Woodmason ..	Jersey ..	6,470	5-37 548-10	Mystery's Son of Melrose
141	Jeanie de Kol ..	..	O. J. Syme ..	Friesian ..	9,428	3-69 548-02	Duplicate Joseph
142	May VIII. of Banyule ..	4464	D. G. Tompkins ..	Jersey ..	6,676	5-29 547-25	Starlet's Chief (Imp.)
143	Bad of View Point ..	2163	H. A. Kent, jun. ..	Ayrshire ..	7,312	4-74 546-47	Jocile of Willowah
144	Majesty's Starlight ..	1185	C. G. Lyon ..	Jersey ..	6,493	5-35 546-39	Starlight's Fox
145	Netherland ..	..	Department of Agriculture ..	Red Poll ..	8,112	4-12 546-31	Melford Prince
146	Crystal of Rythdale ..	2837	Gallery Estate ..	Ayrshire ..	8,670	3-82 546-16	Molly's Record
147	Laura VI. of Melrose ..	3658	W. Woodmason ..	Jersey ..	6,227	5-31 546-06	Golden Pride
148	Pet of Retreat ..	4337	A. E. Spiers ..	Ayrshire ..	8,798	3-92 545-16	Purity's Douglas
149	Fairy V. of Ayrshire Bank ..	5964	A. E. Spiers ..	" ..	8,546	4-09 544-91	Ivanhoe of Ayrshire Bank
150	Balsam of Springhurst ..	4376	J. D. Read ..	Jersey ..	6,072	5-67 544-75	Young Defiance
151	Samotina ..	..	Department of Agriculture ..	Red Poll ..	7,996	4-28 542-4	Nicoline
152	Nashel of Winstade ..	4353	L. McFarlane ..	Ayrshire ..	7,379	4-62 541-31	Glen Meib's Artist
153	Queenie of Hohnwood ..	5153	A. W. Jones ..	Jersey ..	5,886	5-78 540-0	Dehame
154	Symphony ..	4281	C. G. Lyon ..	" ..	5,622	6-06 539-21	Noble Lord
155	Queen of Friesland Park ..	..	O. J. Syme ..	Friesian ..	8,851	3-81 537-34	Colantha Sir Winan (Imp.)
156	Pearl II. of Melrose ..	3670	W. Woodmason ..	Jersey ..	6,107	5-29 536-9	Jessie IV. Son of Melrose II.
157	Soprano ..	1395	C. G. Lyon ..	" ..	5,751	5-86 536-8	Starlight's Fox
158	Lily's Ideal ..	2096	C. G. Knight ..	" ..	6,689	5-08 534-85	Starbright's Lord Twy
159	Asiana ..	..	Department of Agriculture ..	Red Poll ..	7,875	4-25 534-74	Madman
160	Santa Clara ..	..	Department of Agriculture ..	" ..	7,227	4-29 531-85	Nicoline
161	Tambourine ..	1147	C. G. Lyon ..	Jersey ..	6,826	4-84 531-12	Brighton Prince
162	Buttercup ..	875	A. W. Jones ..	" ..	8,329	4-06 529-04	Powder Laddie
163	Frolic of Sparrowale ..	2874	Geelong Harbor Trust ..	Ayrshire ..	7,129	4-12 528-02	Kemp of Glenarthur
164	Jessie XIV. of Melrose ..	5545	W. Woodmason ..	Jersey ..	5,717	5-73 527-87	Pretty Noble (Imp.)
165	Fuchsia IX. of Melrose ..	381	W. Parbury ..	" ..	5,701	5-75 527-76	Handsome Boy of Melrose
166	Molly II. ..	611	C. G. Lyon ..	" ..	6,527	5-01 527-07	Brighton King
167	Audrey Lassie ..	825	C. G. Lyon ..	" ..	6,919	4-71 525-53	Audrey's Fox
168	Rarity VII. of Melrose ..	5559	W. Woodmason ..	" ..	6,190	5-25 524-87	Mystery's Son of Melrose
169	Sweetbread 24th ..	2979	C. D. Lloyd ..	" ..	6,912	4-70 524-77	Dairymaid's Champion

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—continued.

No.	Name.	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
163	Princess Mary II. of Strachan	4136	A. Jackson ..	Ayrshire	lbs. 8,083	4-01	324-61	Jamie of Strachan
164	Princess Edith of Gowrie Park	2876	Geelong Harbor Trust	..	7,561	4-25	323-53	Dr. Cranwell
165	Congo ..	..	Department of Agriculture	Red Poll	7,781	4-12	320-93	Action Dewstone (Imp.)
166	Carina of Springhurst ..	4380	J. D. Read ..	Jersey ..	5,961	5-57	320-49	Young Defiance
167	Dainty VI. ..	4099	T. Harvey ..	.. ..	5,879	5-43	319-84	Young Black Antimony
168	Polly of La Motte ..	5281	S. A. Johnson ..	Ayrshire	7,831	4-08	319-71	Lochinvar of Prior Park
169	Lobelia of Springhurst ..	4386	J. D. Read ..	Jersey ..	6,000	5-30	318-01	Young Defiance
170	Gardenia of Seafield ..	5141	G. M. Gange, jun.	Ayrshire	6,784	4-68	317-96	Philosophic of Gowrie
171	Solanum of Springhurst ..	4294	J. D. Read ..	Jersey ..	6,943	4-55	315-66	Bridgton Cub
172	Geranium of Seafield ..	2884	L. McFarlane ..	Ayrshire	6,348	4-96	315-23	Philosophic of Gowrie
173	Mermad II. of Woolamai Park	5273	G. Kent, jun. ..	..	6,297	4-96	312-44	Highlander
174	Sparkle ..	2978	T. Harvey ..	Jersey ..	5,528	5-64	311-74	Lucy's Noble of G. lands
175	Goldleaf of Raith ..	5322	Leslie and Gerard	Ayrshire	7,074	4-40	311-67	Scottish King
176	Flower of Sparrovale ..	3893	Geelong Harbor Trust	..	6,680	4-66	311-22	Glen Elgin's Rover
177	Avesla ..	..	Department of Agriculture	Red Poll	7,245	4-26	308-95	Nicotine
178	Flower Queen ..	4285	Meier Bros. ..	Jersey ..	6,170	4-98	307-37	Lothna's Larkspur
179	Carrihea ..	..	Department of Agriculture	Red Poll	6,750	4-55	307-38	Twylish Action Dewstone (Imp.)
180	Lady Marjory of Glen Arthur	2838	Gallery Estate	Ayrshire	7,649	4-01	306-98	Dainty Record
181	Marjorene of Retreat ..	2062	A. L. Spiers ..	..	7,957	3-85	306-43	Revenue of Retreat
182	Valence of Golden Vein	2649	D. C. Morrison	..	6,838	4-48	306-21	Antifer of Oakbank
183	Retford Edel ..	302	Miss Bruce Reid	Jersey ..	5,150	4-94	306-12	Dinah's Lad
184	Jewel of Ayrshire Bank	5967	A. Spiers ..	Ayrshire	8,305	3-67	305-21	Luminous of Oakbank
185	Beauty of Retreat ..	4322	Muhlisch Bros.	Jersey ..	7,480	4-07	304-70	Purity's Douglas
186	Fidel of Warrook ..	2341	W. C. Greaves	Ayrshire	7,413	4-11	304-44	Paul ion Plate
187	Ontario ..	..	Department of Agriculture	Red Poll	7,015	4-36	304-06	Action Dewstone (Imp.)
188	Lothna's Magnet ..	..	S. Cullis Hill ..	Jersey ..	5,560	5-44	302-69	Lothna's Larkspur
189	Daisy V. of Melrose ..	3637	W. Woodmason	.. ..	5,774	5-23	302-10	Twylish Mystery's Son of Mr. rose
190	Madge of Sparrovale ..	3899	Geelong Harbor Trust	Ayrshire	6,684	4-46	298-47	Stuart of Gowrie Park
191	Tulip of Springhurst ..	2730	J. D. Read ..	Jersey ..	5,531	5-30	297-88	Captive
192	Briar ..	..	Department of Agriculture	Red Poll	7,783	4-37	296-55	Nicotine
193	Pearl of Friesland Park	..	O. J. Syme ..	Friesian	8,336	3-54	295-47	King of the Dominion
194	Soudana ..	..	Department of Agriculture	Red Poll	7,330	4-01	294-25	Action Dewstone (Imp.)
195	Dear of Midlbranch ..	4028	A. H. Schler ..	Ayrshire	7,272	4-02	292-68	Havelock
196	Duchess of Friesland Park	..	O. J. Syme ..	Friesian	8,040	3-63	291-53	King of Dominion
197	Doris H. of Kingsvale ..	4025	C. Falkner ..	Jersey ..	5,497	5-27	289-80	Cauchy's Lad VIII.
198	Euphene X.H. ..	..	W. C. Atkinson	Southdown	8,170	3-53	288-67	Blackston Prince 1st
199	Mahratta ..	..	Department of Agriculture	Red Poll	6,277	4-58	287-48	Nicotine
200	Grace Darling of Warrook	2909	W. C. Greaves	Ayrshire	7,028	4-08	287-04	Allie's Jamie of Warrook
201	Jessie V. of Melrose ..	3652	W. Woodmason	Jersey ..	5,504	5-15	283-39	Royal Blue
202	Sylvia of Sparrovale ..	2515	Geelong Harbor Trust	Ayrshire	6,788	4-17	283-10	Jack o' Gowrie
203	Empire ..	..	Department of Agriculture	Red Poll	5,959	4-69	282-50	Rolcum
204	Daffodil ..	157	G. Rowe ..	Jersey ..	6,375	4-42	282-14	Starbright's Carnation
205	Retford Twylish ..	4155	Miss S. L. Robinson	.. ..	4,792	5-87	281-47	Pox Champion of St. Peter's
206	Letty of Warrook ..	5940	W. C. Greaves	Ayrshire	5,831	4-82	281-00	George of Warrook
207	Madge ..	3375	Mrs. A. Black ..	Jersey ..	5,514	5-08	280-14	Rutus
208	Lassie Fowler V. of Melrose	5509	W. Woodmason	.. ..	4,670	5-99	279-92	Pretty Noble (Imp.)
209	Carnation ..	..	S. Cullis Hill ..	.. ..	6,039	4-62	278-87	Brighton Warrior
210	Kubanka ..	..	Department of Agriculture	Red Poll	6,614	4-21	278-39	Nicotine

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—continued.

No.	Name	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
211	Lucy of Ben Kell ..	2301	R. Ralston ..	Ayrshire ..	lbs.	5.918	4-61 274-09	Glen Rhodes Chief
212	Marguerite ..	3576	Mrs. A. Black ..	Jersey ..	6,137	4-44 272-66	Rufus	Rufus
213	Flashlight ..	1972	Mrs. A. Black ..	..	5,903	4-53 267-69	Golden Plum	Golden Plum
214	Madge II. of Glengowrie ..	3660	A. H. Schier ..	Ayrshire ..	5,396	4-18 267-34	Royal George	Royal George
215	Mona's Pearl ..	3577	Mrs. A. Black ..	Jersey ..	5,912	4-75 266-50	Prince V.	Prince V.
216	Eva of Glencairn ..	4410	G. M. Gange, jun. ..	Ayrshire ..	6,057	4-40 266-57	Zeno of Rythdale	Zeno of Rythdale
217	Pet. of Retreat ..	4337	A. E. Spiers ..	..	8,798	3-92 265-18	Prinity's Douglas	Prinity's Douglas
218	Velveteen ..	..	Department of Agriculture ..	Red Poll ..	6,765	3-89 263-48	Liane	Liane
219	Pacifica ..	..	Department of Agriculture ..	..	6,023	4-37 263-30	Acton Dewstone (Imp.)	Acton Dewstone (Imp.)
220	Opaline ..	3578	Mrs. A. Black ..	Jersey ..	4,971	5-20 263-17	Rufus	Rufus
221	Blanche of Ben Kell ..	3047	R. Ralston ..	Ayrshire ..	6,361	4-13 262-80	Melville Duke	Melville Duke
222	Lassie V. of Ayrshire Bank ..	5968	A. Spiers ..	..	6,833	3-84 262-81	Luminous of Oakban	Luminous of Oakban
223	Ada II. of Fernhill ..	1986	G. M. Gange, jun. ..	..	6,126	3-98 258-65	Pensloner of Oakban	Pensloner of Oakban
224	Tilly Lantry ..	5257	T. Moyley ..	Jersey ..	4,911	5-26 258-42	Lotina's Larkspur	Lotina's Larkspur
225	Peerless IX. of Melrose ..	5558	W. Woodmason ..	..	4,774	5-40 257-91	Fox's Nonpareil	Fox's Nonpareil
226	Bullion ..	..	Department of Agriculture ..	Red Poll ..	6,229	4-12 256-62	Battery	Battery
227	Mitre of Balvornie ..	4634	A. H. Schier ..	Ayrshire ..	5,663	4-52 256-08	Molly's Marshall of B'vornie	Molly's Marshall of B'vornie
228	Ruby ..	513	G. Rowe ..	Jersey ..	5,346	4-78 255-68	Audrey's Lad	Audrey's Lad
229	Sweet Pansy III. of Melrose ..	5562	W. Woodmason ..	..	3,931	6-48 254-82	Pretty Noble (Imp.)	Pretty Noble (Imp.)
230	Beauty of Dundara ..	4256	D. C. Morrison ..	Ayrshire ..	5,405	4-71 254-79	Brown Prince of Dundara	Brown Prince of Dundara
231	Alice of Grahamsvale ..	5328	Mrs. L. Orchard ..	Jersey ..	4,674	5-39 251-92	Fox Liddle III.	Fox Liddle III.

Cows under 4 Years of Age—200 lbs. Standard.

Order of Merit.	Name	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
1	May Queen II. ..	..	A. W. Jones ..	Friesian ..	lbs.	11,340	4-50 519-41	Annette's Prince
2	Kathleen ..	..	Department of Agriculture ..	..	12,027	3-72 511-17	Woodcrest Joe	Woodcrest Joe
3	Peep-Bo of Tarnhill ..	5160	C. G. Knight ..	Jersey ..	8,705	5-15 448-71	Morocco's Carnat	Morocco's Carnat
4	Madrigal ..	..	Department of Agriculture ..	Friesian ..	11,375	3-03 447-50	Fox	Fox
5	Graceful Duchess XIV. of Melrose ..	5540	W. Woodmason ..	Jersey ..	6,032	5-47 431-02	Handsome Boy V.	Handsome Boy V.
6	Jenny and N. of Melrose ..	..	W. Woodmason ..	..	7,445	5-74 427-10	First Choice of Melr	First Choice of Melr
7	Lucy VIII. of Melrose ..	5580	W. Woodmason ..	..	6,800	6-60 425-13	Lady Melrose II.'s No	Lady Melrose II.'s No
8	Bolobek Dolly Grey ..	..	O. J. Syme ..	Friesian ..	11,367	3-69 419-42	Runda Prince of Ru	Runda Prince of Ru
9	Lady Marge of Jerseyholm ..	4981	T. Harvey ..	Jersey ..	6,496	6-43 417-50	Sweet Fox II.	Sweet Fox II.
10	Bolobek Dess ..	..	A. W. Jones ..	Friesian ..	10,531	3-25 405-85	Rhoda Prince of R	Rhoda Prince of R
11	Bank-o of Springhurst ..	5387	J. D. Reid ..	Jersey ..	6,607	6-14 405-67	Imbarok	Imbarok
12	Pearl IV. of Melrose ..	5556	B. H. Wood ..	..	6,681	6-00 404-81	Pretty Noble (Imp.)	Pretty Noble (Imp.)
13	Margaret's Lass III. ..	4263	C. G. Lyon ..	..	7,177	5-59 401-45	Noble Lord (Imp.)	Noble Lord (Imp.)
14	Thora IV. ..	5224	C. G. Lyon ..	..	6,682	6-00 400-97	Silver Bell's Golden I	Silver Bell's Golden I
15	Margaret of Ayrshire Bank ..	5259	A. Spiers ..	Ayrshire ..	10,026	3-98 399-21	Montrose of Ayrsh	Montrose of Ayrsh
16	Lovebird ..	4885	Department of Agriculture ..	Jersey ..	6,921	5-72 396-21	Beatrice with Fox	Beatrice with Fox
17	Croesus of Springhurst ..	5303	J. D. Reid ..	..	7,027	5-59 392-82	Young Defiance	Young Defiance
18	Bolobek May ..	..	O. J. Syme ..	Friesian ..	10,348	3-72 392-21	Indulge Johanna	Indulge Johanna
19	Nititana ..	..	Department of Agriculture ..	Red Poll ..	7,260	5-30 385-32	Noktine	Noktine
20	Vanilla VIII. of Melrose ..	5565	G. H. Winsor ..	Jersey ..	6,427	5-98 384-18	Pretty Noble (Imp.)	Pretty Noble (Imp.)
21	Puen Buen Velvet VII. ..	3973	Miss S. L. Robinson ..	..	7,760	4-03 383-58	Noble of the Isles (Imp.)	Noble of the Isles (Imp.)
22	Silvermine XIV. of Ban-yule ..	5220	C. G. Lyon ..	..	7,798	4-91 383-34	Mable's Child (Imp.)	Mable's Child (Imp.)
23	Noble's Pet ..	4247	C. G. Lyon ..	..	7,737	4-90 378-79	Noble Lord (Imp.)	Noble Lord (Imp.)

COWS UNDER 4 YEARS OF AGE—20' LBS. STANDARD—continued.

Year.	Name.	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
					lbs.	lbs.		
24	Hawthorn IV. of Banbury	5297	C. G. Lyon	Jersey	8,726	5.02	37.5	Mabel's Chief (Imp.)
25	Sylvan Maid of Glen Albion	5408	L. McFarlane	Ayrshire	8,431	4.48	37.7-99	Stately of Glenlea
26	Princess May of Tarnpirr	5168	C. G. Knight	Jersey	7,589	4.98	37.7-70	Morocco's Carnation Fox
27	Charming Girl	319	Teach Bros.	..	7,211	5.28	37.7-05	Ironmaster (Imp.)
28	Verdona of Springhurst	5407	J. D. Read	..	6,559	5.73	37.8-81	Young Deanna
29	Whitehead	4244	C. D. Floyd	..	6,720	5.58	37.4-94	Mal's Chief (Imp.)
30	Holly of Springhurst	5395	J. D. Read	..	6,420	5.82	37.8-00	Young Deanna
31	Hawthorn V. of Banbury	5298	C. G. Lyon	..	7,007	5.25	36.7-06	Mal's Chief (Imp.)
32	Thora III.	5223	C. G. Lyon	..	6,391	5.75	36.5-99	Silver Duke Golden Lad
33	Cherry IX. of Melrose	..	W. Woodmason	..	6,143	5.07	36.0-51	Lady Melrose II. Noble
34	Elly VI. of Melrose	5552	W. Woodmason	..	5,119	7.05	39.0-01	Handsome Boy III.
35	Daisy VII. of Melrose	5552	W. Woodmason	..	6,375	5.67	35.5-40	Lady Melrose II. Noble
36	Waverly Lass III. of Melrose	..	W. Woodmason	..	5,065	6.57	35.0-00	Handsome Boy V.
37	Indigo of Springhurst	5396	J. D. Read	..	6,183	5.66	34.0-87	Young Deanna
38	Molly V. of Banbury	5216	C. G. Lyon	..	5,181	5.61	34.6-88	Mal's Chief (Imp.)
39	Cramp	5206	C. G. Lyon	..	6,563	5.24	34.4-85	Noble Lord (Imp.)
40	Charmoko	5195	C. D. Floyd	..	5,413	6.25	33.8-08	Mal's Chief (Imp.)
41	Bolobek Isabella	..	C. J. Syme	Friesian	9,586	3.52	33.7-08	Imbridge Johanna Lad (Imp.)
42	Lady Hector III. of Melrose	5549	W. Woodmason	Jersey	5,470	6.15	33.6-51	Pretty Noble (Imp.)
43	Flower IX. of Melrose	5535	W. Woodmason	..	5,335	6.27	33.4-69	Lady Melrose II. Noble
44	Bornia of Retreat	4321	J. A. Lang	Ayrshire	7,014	1.73	33.1-03	Outbody of Glenlea
45	Jessie XVI. of Melrose	5547	W. Woodmason	Jersey	5,256	6.20	33.0-80	Handsome Boy II.
46	Jessie XVII. of Melrose	5547	W. Woodmason	..	4,315	6.49	32.3-03	Handsome Boy III.
47	David of Mapleton	3511	G. A. Kenty	Ayrshire	6,736	1.80	32.3-22	Hero of Rythdale
48	Silvermae XIII. of Banbury	1270	C. G. Lyon	Jersey	6,417	5.03	32.1-01	Mabel's Chief (Imp.)
49	Wattle of Springhurst	5408	J. D. Read	..	6,763	4.73	31.0-69	Brighton Cub
50	Dominic's Hengrove Belle Azura	..	O. J. Syme	Friesian	8,151	3.61	31.0-83	King of Dominion
51	..	..	Department of Agriculture	Red Poll	7,118	4.25	30.2-90	Nicotine
52	Maitland's Floss	423	A. Jackson	Jersey	5,470	5.49	30.3-07	Maquet's Maitland
53	Blue Bell of Sparrowale	3886	Geelong Harbor Trust	Ayrshire	7,145	4.13	29.9-47	Jack o' Gowrie
54	Pearl V. of Melrose	5557	W. Woodmason	Jersey	1,963	5.88	28.9-24	Lady Melrose II. Noble
55	Alice of Ben Kell	2046	R. Ralston	Ayrshire	6,867	4.19	28.7-97	McVillo Duke
56	Puen Benn Needle X.	9135	Mrs S. L. Robinson	Jersey	4,859	5.90	28.6-73	Noble of the Isles
57	Daphne XIII.	..	W. K. Atkinson	Shorthorn	8,290	3.15	28.5-20	Blackston Prince XVIII
58	Pussy's Promise	4320	Meier Bros.	..	5,659	4.96	28.1-02	Starbright's Renard
59	Pussy of Retreat	5236	Munichbach Bros.	Ayrshire	5,758	4.86	27.8-59	Anthony of Glenlea
60	Clover Leaf	..	S. Cullick Hall	Jersey	5,785	4.79	27.0-76	Black Prince
61	Sarah of Glen Albion	4183	G. Gamble, Jun.	Ayrshire	5,925	4.55	26.8-30	Dauphin of Glenlea
62	Greenhead	5197	C. D. Floyd	Jersey	4,408	5.15	26.4-73	Mal's Chief (Imp.)
63	Belle Lottie of Meadow Bank	..	Ryan and Howley	Ayrshire	..	4.18	26.0-80	Bonnie Lad of Golden Veln
64	Daphne of Retreat	2959	A. Spiers	..	6,316	4.00	25.9-70	Revenue of Retreat
65	Beauty of Couella II.	..	Mrs. A. Black	Jersey	5,237	1.87	25.5-96	Onilisk
66	We Elna of Ben Kell	3056	R. Ralston	Ayrshire	5,770	4.93	25.5-51	Merle Duke
67	Ivy of Retreat	2964	Munichbach Bros.	..	5,412	4.60	25.3-11	Revenue of Retreat
68	Mystery XV. of Melrose	5554	W. Woodmason	Jersey	4,442	5.66	25.1-27	Lady Melrose II. Noble
69	Moore	..	Department of Agriculture	Friesian	6,789	3.66	24.8-55	Oak de Kol II. Home
70	Jessie XVIII. of Melrose	..	G. H. Windsor	Jersey	4,166	5.86	24.1-16	Stead Pops
71	Nickahoe	..	Department of Agriculture	Red Poll	5,012	4.74	23.7-85	Topnotch
72	Dunallister's Annie Laurie	5364	T. McLeay	Jersey	4,233	5.57	23.0-94	Lord Brighton of Dunallister
73	Queen Elizabeth	..	G. Rowe	..	5,448	4.20	23.4-94	Duchess VIII. Fox
74	Lady Perfection	4555	J. Mackenzie	..	5,413	6.50	22.1-78	Perfection's Lad o' King's Vale
75	Silver Bell of Calae	4030	C. Falkenberg	..	3,951	5.60	22.1-26	Defiance
76	Princess Dot	497	G. Rowe	..	3,646	6.05	20.2-02	Kyabram Milkmaid
77	Princess Lady II.	..	C.S.J.H.B.	..	..	..	..	..
78	Lotnia's Magnet	5238	E. Wiseman	..	4,349	5.06	21.0-09	Starbright Renard
			S. Cullick Hall	..	4,516	4.19	21.0-87	Lotnia's Larkspur
79	Bud de Ben Kell	4571	R. Ralston	Ayrshire	5,368	4.04	21.4-49	Merle Duke
80	Jeannette of Glengowrie	3857	A. H. S. Schier	..	4,983	4.12	20.5-87	Glen Mabin's Jamie
81	Duchess 43rd	..	W. K. Atkinson	Shorthorn	4,862	4.20	20.1-43	Poplar Vale Prince I.

Heifers—175 lbs. Standard.

Order of Merit.	Name	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire
1	Lady Choice of Tarupirr	5160	C. G. Knight ..	Jersey ..	8,007	6-17 493-80	First Choice of Melr	
2	Hyacinth .. ..	..	Department of Agriculture	Friesian	11,429	5-32 448-50	Onk de Kol II. Hor
3	Miss Fox of Tarupirr ..	5162	C. G. Knight ..	Jersey ..	7,244	5-82 421-57	leasid Peles	
4	Bolobek Aaggie Colantha	..	O. J. Syme ..	Friesian	8,583	4-35 417-43	Morocco's Carnatic	
5	Veronica of Tarupirr ..	5174	C. G. Knight ..	Jersey ..	6,679	6-08 496-63	Fox	
6	Molly of Clover Flat ..	5487	D. G. Tompkins ..	..	6,510	6-20 491-81	Colantha Poudac
7	Sweet Nell .. ..	..	C. G. Knight ..	..	7,038	5-68 399-87	First Choice of Melr
8	Tiny of Tarupirr	5172	C. G. Knight ..	..	5,982	6-45 385-85	First Choice of Melr
9	Ringtail of Tarupirr ..	5170	C. G. Knight ..	..	6,019	6-32 380-81	Morocco's Carnatic
10	Magnolia .. ..	..	C. G. Lyon ..	..	6,837	5-50 376-93	Fox
11	Mernaide IV. of Melrose ..	..	W. Woodmanson ..	..	6,084	6-16 374-71	Sport
12	Romany Girl	5171	C. G. Knight ..	..	6,243	5-86 366-17	Young Dehanne
13	Madame Melrose of Tarupirr	5161	C. G. Knight ..	..	6,181	5-91 365-55	Handsome Boy V.
14	Empress II. of Holmwood ..	4979	T. Harvey ..	..	6,720	5-44 365-43	Dolly's Twylsh
15	Trixie of Tarupirr	5173	C. G. Knight ..	..	5,476	6-48 355-45	Audrey's Lord Twyl
16	Fuchsia XIII. of Melrose ..	..	A. W. Jones ..	..	6,257	5-68 355-17	Morocco's Carnatic
17	Sunset Star .. ..	..	Agricultural High School, Tenn-	..	6,498	5-38 349-52	Fox
18	Kirsty VI. of Jerseyholm ..	4980	T. Harvey ..	..	5,378	6-46 347-45	Dunallister Lord Br
19	Flower XI. of Melrose ..	..	W. Woodmanson ..	..	5,351	6-40 342-34	ton
20	Budding Rose of Sparrow-	3887	Geelong Harbor Trust	Ayrshire	6,365	5-31 338-32	Venture's Hero	
21	Postcard of Tarupirr ..	5167	C. G. Knight ..	Jersey ..	4,965	6-81 337-57	Top Notch of Melr	
22	Mystery XVII. of Melrose ..	..	W. Woodmanson ..	..	5,411	6-24 337-54	Scottish King of Go
23	Woodnymph .. ..	..	Department of Agriculture	Friesian	10,610	3-17 330-21	Park
24	Mary Ann .. ..	..	C. G. Lyon ..	Jersey ..	6,061	5-51 333-86	First Choice of Melr
25	Mystic of Tarupirr	5163	C. G. Knight ..	..	5,842	5-70 332-87	Lady of Melrose
26	Carrie VI. of Melrose ..	..	W. Woodmanson ..	..	5,246	6-33 332-27	Noble
27	Jonquil of Springhurst ..	5398	J. D. Read ..	..	5,143	6-11 329-55	Earl Twylsh
28	Colombine of Springhurst ..	5392	A. D. Reid ..	..	5,106	6-37 325-61	Morocco's Carnatic
29	Gipsy Girl of Sparrow-	3894	Geelong Harbor Trust	Ayrshire	6,275	5-16 323-76	Handsome Boy III.	
30	Bluebell III.	561	Leach Bros. ..	Jersey ..	6,381	5-05 322-82	Attraction of Spr	
31	Fleur de Lis of Sprin-	5394	J. D. Read ..	..	6,878	4-66 320-73	hurst
32	Anemone of Springhurst ..	5386	J. D. Reid ..	..	5,865	5-45 320-45	Young Dehanne
33	Kyona's Fillanra .. ..	..	Miss Rothson ..	..	5,997	5-23 319-76	Scottish King of Go
34	Bolobek Lass .. ..	..	O. J. Syme ..	Friesian	9,955	3-53 319-42	Park
35	Judith Daffodil .. ..	..	Miss B. Reid ..	Jersey ..	6,273	6-08 318-36	Twylsh's Pride
36	Graciel Countess of Les-	..	A. Jackson ..	..	4,776	6-55 312-72	Brighton Cub
37	Humitalel .. ..	..	C. G. Knight ..	..	5,757	5-40 311-03	Brighton Cub
38	Melford Mascotte	5215	C. G. Lyon ..	..	5,669	5-47 309-91	Brighton Cub
39	Silvermine XV. of Ban-	5221	C. G. Lyon ..	..	6,318	4-87 309-20	Lion's Jarks
40	Scotia .. ..	..	Department of Agriculture	Red Poll	7,036	4-32 303-93	Twylsh
41	Verona of Warrook	5171	W. C. Greaves ..	Ayrshire	7,398	1-10 303-71	Indigo Johanna I	
42	Peerless XII. of Melrose ..	..	W. Woodmanson ..	Jersey ..	5,042	6-02 305-71	Judice May II's P
43	Vanilla XI. of Melrose ..	..	W. Woodmanson ..	..	5,068	5-07 302-82	Handsome Boy III
44	Zoe VI. .. ..	..	C. G. Lyon ..	..	4,629	6-53 302-13	Park
45	Lady Virtue of Ben Kell ..	4580	R. Ralston ..	Ayrshire	6,778	4-37 296-19	Twylsh	
46	Blanch Rose V. .. ..	..	W. K. Atkinson ..	Short-horn	8,196	3-65 298-12	Gipsan of Oakbank
47	Rosie of Viewpoint	4975	J. W. Cochran ..	Ayrshire	6,937	4-25 294-72	Pondie Vale Prince	
48	Lassie IV. of Clover Flat ..	5485	D. G. Tompkins ..	..	5,012	4-9 294-56	Doctor of Mapleton
49	Princess Royal of Spring-	5403	J. D. Read ..	..	5,086	5-79 294-36	Prime Noreen
50	Brighton Princess of Spring-	5391	J. D. Read ..	..	5,325	5-51 293-18	Young Dehanne
51	Chexy IX. of Melrose ..	..	W. Woodmanson ..	..	5,081	5-71 291-81	Brighton Cub
52	Defender's Queen of St. Albans ..	..	A. E. Batson ..	..	4,457	6-55 291-81	Lady of Melrose

HEIFERS—175 LBS. STANDARD—continued.

Name.	Herd Book No.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
Noble's Coquette ..	..	Miss B. Reid ..	Jersey ..	lbs. 5,036	5-79	291-49	Castor's Premier
Fairy of Warrook ..	5170	W. C. Greaves ..	Ayrshire ..	6,331	4-58	291-18	Minerva's Jamie of Warrook
Pimpernel of Springhurst ..	5401	J. D. Read ..	Jersey ..	5,653	5-14	290-79	Brighton Cub
Dominion Flower Queen ..	..	Flack and Sewell ..	Friesian ..	7,920	3-66	290-24	Longbeach League
Alma of Langley Park ..	3477	J. Callery ..	Ayrshire ..	6,301	4-60	289-67	Bonnie's Chief of Victoria Bank
Pastime of Tarnhill ..	5164	C. G. Knight ..	Jersey ..	5,025	5-76	289-39	Star
Creamy of Tetterfield ..	..	A. Jackson ..	..	5,679	5-08	288-23	Handsome Boy III.
Lella of Warrook ..	5173	W. C. Greaves ..	Ayrshire ..	5,702	5-03	286-88	Minerva's Jamie of Warrook
Wistaria of Springhurst ..	5109	J. D. Read ..	Jersey ..	5,615	5-06	285-96	Attraction of Springhurst
Socks II. of Pine Grove ..	5143	A. H. Schler ..	Ayrshire ..	7,010	1-06	281-81	Glen Keith of Pine Grove
Bolobek Rose ..	..	A. W. Jones ..	Friesian ..	6,857	4-14	284-00	Colantha Pontiac
Rose of Sparrovale ..	3906	Geelong Harbor Trust ..	Ayrshire ..	6,186	4-58	282-86	Scottish King of Gowrie Park
Marie of Tarnhill ..	..	C. G. Knight ..	Jersey ..	4,478	6-30	282-28	First Choice
Mary of Springfield ..	4673	J. W. Cochrane ..	Ayrshire ..	6,006	4-62	281-80	Glen Elgin's Jan 690
Myrtle II. of Pine Grove ..	4637	A. H. Schler ..	..	6,546	4-30	281-71	Glen Keith of Pine Grove
Cloverleaf ..	5479	J. Mackenzie ..	Jersey ..	5,925	4-74	281-08	May Boy of Banyule
Lady Grey V. of St. Albans ..	5058	A. W. Jones ..	..	5,235	5-33	281-01	Sweet Fox
Creamy II. of Tetterfield ..	..	A. Jackson ..	..	5,190	5-40	280-32	Handsome Boy III.
Morven Queen I.X. ..	..	W. K. Atkinson ..	Shorthorn ..	6,739	4-13	270-83	Major York Rose I.
Meadow Sweet of Sparrovale ..	3903	Geelong Harbor Trust ..	Ayrshire ..	5,640	4-93	278-30	Jock of Sparrovale
Silvermine XVI. of Banyule ..	3222	C. O. Lyon ..	Jersey ..	4,901	5-67	278-05	Mabel's Chief (Imp.)
Lady Marge of Gippsland ..	..	A. E. Batson ..	..	4,444	6-25	277-63	May's Larkspur's Lord Twyllish
Flower Girl ..	..	Meier Bros. ..	..	5,888	4-71	276-20	Starbright Renard
Diko ..	..	C. G. Lyon ..	..	5,053	5-45	275-52	Hallmark
Rosebud II. of Pine Grove ..	4641	A. H. Schler ..	Ayrshire ..	5,804	4-74	275-44	Glen Keith of Pine Grove
Myrtle of Springfield ..	4974	J. W. Cochrane ..	..	5,845	4-69	271-42	Glen Elgin's Jan
Daisy V. of Holmwood ..	4978	T. Harvey ..	Jersey ..	5,568	4-93	274-36	Audrey Twyllish
Pretty Peg ..	5219	C. G. Lyon ..	..	5,560	4-92	273-62	Merry Mike (Imp.)
Jubilee Queen I. of St. Albans ..	..	A. E. Batson ..	..	3,893	6-99	272-25	Discoverer
Dolly I. of St. Albans ..	5055	A. W. Jones ..	..	4,520	5-99	270-58	Sweet Fox
Boron II. of Pine Grove ..	3826	A. H. Schler ..	Ayrshire ..	5,828	4-61	268-63	Glen Keith of Pine Grove
Brighton Peeres ..	..	T. Mesley ..	Jersey ..	5,360	5-01	268-60	Skin
Chloe ..	..	C. D. Lloyd ..	..	4,991	5-34	266-39	Mabel's Chief (Imp.)
Dairymaid 26th ..	..	W. K. Atkinson ..	Shorthorn ..	6,469	4-07	263-61	Poplar Vale Prince 24th
Shadow ..	..	T. Mesley ..	Jersey ..	4,520	5-79	261-68	Skin
Prinrose of Jerseyvale ..	..	Mrs. L. Orchard ..	..	4,723	5-47	258-16	Golden Twyllish
Lady Merlin ..	..	C. Falkenberg ..	..	4,227	6-06	256-37	Merlin 832
Maitland Petal III. of Havilah ..	5212	C. G. Lyon ..	..	4,604	5-56	255-85	Silver Bell's Golden Lad
Dumalister Clem ..	349	W. Parbury ..	..	4,232	6-04	255-84	Obelisk
Defender's May III. ..	C.S.J.H.B.	Miss Robinson ..	..	4,090	6-22	254-80	Lotina's Defender
Mimulus of Springhurst ..	5400	J. D. Read ..	..	4,091	6-21	253-88	Investigator of Melrose
La Plata ..	..	Department of Agriculture ..	Red Poll ..	6,373	3-94	251-57	Nicoline
Maitland's Canary ..	..	A. Jackson ..	Jersey ..	4,065	6-17	250-76	Magnet's Maitland
Bolobek Jean ..	..	G. J. Syne ..	Friesian ..	6,114	3-80	249-29	Indulge Johanna Lad
Prinrose II. of Pine Grove ..	4640	A. H. Schler ..	Ayrshire ..	6,905	4-10	246-32	Glen Keith of Pine Grove
Ettie V. of Banyule ..	5204	C. G. Lyon ..	Jersey ..	4,780	5-14	245-89	Mabel's Chief (Imp.)
Peaceful of Bundara ..	4267	D. C. Morrison ..	Ayrshire ..	6,816	3-53	244-74	Doctor of Golden Vein
Bluebell of Jerseyholm ..	..	T. Harvey ..	Jersey ..	3,885	6-27	243-72	Venture's Hero
Belle of Sparrovale ..	3883	Geelong Harbor Trust ..	Ayrshire ..	5,040	4-86	241-94	Stuart of Gowrie Park
Hawthorn VI. of Banyule ..	5209	C. G. Lyon ..	Jersey ..	4,512	5-27	237-78	Mabel's Chief (Imp.)
Pansy's Promise ..	5229	Meier Bros. ..	..	5,078	4-45	236-11	Starbright Renard
May of Sparrovale ..	3902	Geelong Harbor Trust ..	Ayrshire ..	4,565	5-17	236-03	Scottish King of Gowrie Park
Kyora Lassie ..	..	Miss Robinson ..	Jersey ..	4,721	4-99	235-83	Financial King
Crimea ..	..	Department of Agriculture ..	Red Poll ..	5,917	3-98	235-36	The Spaniard
Cherry V. ..	..	W. K. Atkinson ..	Shorthorn ..	5,769	4-07	234-87	White Clinker
Moonlight ..	..	A. Jackson ..	Jersey ..	4,638	5-02	234-06	Handsome Boy III.

HEIFERS—175 LBS. STANDARD—continued.

Name	Herd Book No.	Owner.	Breed.	Milk.	Service Test.	Butter Fat.	Sire.
				lbs.	lbs.		
Claribelle VII. ..	..	Miss Robinson	Jersey ..	4,363	5-30	231-23	Financial King
Ryebread ..	..	C. D. Lloyd ..	.. ..	4,112	5-59	230-07	Mabel's Chief (Imp.)
Daphne of Raith ..	5321	Leslie and Ger-	Ayrshire	5,683	4-04	229-42	Jaimie of Raith
		rand					
Daffodil of Jerseyvale ..	..	Mrs. L. Orchard	Jersey ..	4,253	5-39	229-41	Golden Twylsh
Parrakeet II. of Banyule ..	3218	G. C. Lyon ..	.. ..	4,433	4-10	229-02	Mabel's Chief (Imp.)
Pussy of Grahamvale ..	3339	Mrs. L. Orchard	.. ..	4,334	5-25	227-47	Golden Twylsh
Belladonna of Springhurst ..	5389	J. D. Read ..	.. ..	4,451	4-99	222-35	Attraction of Spring-
							hurst
Peaceful of Raith ..	5324	Leslie and Ger-	Ayrshire	5,027	4-39	219-16	Adela's Jaimie of Raith
		rand					
Kather of Bundara ..	4259	D. C. Morrison	.. ..	4,662	4-58	213-73	Advance of Golden Vein
Stork of Springhurst ..	5406	J. D. Read ..	Jersey ..	3,983	5-34	212-51	Young Defiance
Jewel I. of Brookfield ..	570	W. Parbury ..	.. ..	4,336	4-84	210-19	Noble of Balwyn
	C.S.J.H.B.						
Flower I. of Brookfield ..	566	W. Parbury ..	.. ..	3,891	5-35	208-19	White Bell's Champion
	C.S.J.H.B.						
Marguerite of Glengowrie ..	4632	A. H. Schier ..	Ayrshire	4,757	4-30	204-69	Orpheus of Glengowrie
Nanette H. ..	..	T. Mesley ..	Jersey ..	3,260	6-26	202-04	Skim
Sweet Marie of Retreat ..	4349	Mohltzsch Bros.	Ayrshire	4,477	4-38	195-99	Anthony of Glenora
Countess II. of Pine Grove ..	6627	A. H. Schier ..	.. ..	3,873	5-03	194-85	Glen Keith of Pine Grove
Rosetta of Box Hill ..	6231	Meier Bros. ..	Jersey ..	3,668	5-29	194-11	Starbright Renard
Beauty of Brookfield ..	559	W. Parbury ..	.. ..	4,211	4-56	191-88	White Bells Champion
	C.S.J.H.B.						
Mottle of Raith ..	5323	Leslie and Ger-	Ayrshire	4,285	4-37	187-45	Jaimie of Raith
		rand					
Laurie II. ..	..	J. Mackenzie ..	Jersey ..	3,363	5-50	184-90	Dunalister's Noble
Sylvia of Bundara ..	4272	D. C. Morrison	Ayrshire	4,733	3-91	184-90	Doctor of Golden Vein
Karong Daisy ..	..	J. Baker ..	Red Poll	4,038	4-57	184-69	
May ower of Colar ..	4909	C. Falkenberg	Jersey ..	2,967	6-22	184-51	Cowslip's Lad
Trikle of Colar ..	4914	C. Falkenberg	.. ..	3,127	5-17	182-50	Handsome Progress 274
Princess of Kudah ..	5814	J. Mackenzie ..	.. ..	3,404	5-34	181-64	Starbright Renard
Pendant ..	..	Department of	Red Poll	4,893	3-71	181-37	Longford Major (Imp.)
		Agriculture					
Nancy I. of Brookfield ..	575	W. Parbury ..	Jersey ..	2,957	6-11	180-73	Black Wattle
	C.S.J.H.B.						
Ettie II. of Brookfield ..	565	W. Parbury ..	.. ..	3,008	5-95	179-06	White Bells Champion
	C.S.J.H.B.						
Stella of Bundara ..	4271	D. C. Morrison	Ayrshire	4,604	3-87	178-40	Bonnie Lad of Golden
							Vein
Silver Queen II. of	4913	C. Falkenberg	Jersey ..	3,386	5-19	175-67	Fox IV.
Taringa ..	..					

FARM NOTES FOR AUGUST, 1919.

STATE RESEARCH FARM, WERRIBEE.

H. C. Wilson, Manager.

August has been a very dry month, and the dry weather conditions all through the winter have made the season's prospects below the average. The rainfall for the year to date totals 1,421 points, distributed as follows:—

January	..	..	..	55	points
February	..	..	..	288	"
March	..	..	..	536	"
April	..	..	..	76	"
May	..	..	..	146	"
June	..	..	..	119	"
July	..	..	..	134	"
August	..	..	..	67	"
				1,421	"

The rain which fell during the five months, April to August inclusive—when crops and grasses benefit—was 542 points, considerably below the average for many years past. The heavy frosts and drying winds experienced during August have had a very bad effect on both crops and pastures.

Early sown crops are still holding out, but late sown ones are very backward. The crops on well-worked fallow are particularly prominent, and compare more than favorably with those sown on "green-ploughed" land.

Crops seeded on land worked up in February, after last season's spring rape, show to advantage, but no other system of cropping will give such results as those apparent on well-worked, early winter fallow.

CULTURAL OPERATIONS.

The cultural operations for the month were as follows:—

1. Fallowing 150 acres (The total now fallowed is now 350 acres.)
2. Harrowing early fallows.
3. Rolling 300 acres of growing crop. (This brings the total area rolled to 800 acres, and completes this work for the season.)
4. Excavation of main drain, 40 chains long, through new lucerne land.
5. Filling, levelling, checking, and grading 100-acre field in preparation for lucerne seeding next month.
6. Cultivating, levelling, and grading 10 acres of field, to be devoted to irrigation experiments.
7. Renovation of old lucerne fields, cultivation with heavy tined cultivator, and top-dressing with 2 cwt. super. per acre

FODDER RESERVES.

The dry season has shown the necessity for fodder reserves. Four hundred and fifty tons of oaten and wheaten hay are still on hand, while lucerne hay and silage reserves are ample for our needs until the new crop is harvested.

Forage crops grown for sheep have been a boon during the past winter months, and by the grazing of these crops with the winter

grazing of lucerne fields, the condition of the flocks and herds on the farm has been maintained during this trying season.

Stock.

Horses.—Sixty farm horses are employed, mainly on fallowing, which is the heaviest work of the year. All are in good health and hard condition. The Clydesdale mares "Patricia" and "Lucilla" gained honours at the Wagga (N.S.W.), show at the end of the month. Both were entered in the same class—brood mares in foal. "Patricia" was placed first and champion, with "Lucilla" second, in a strong field. These mares are in foal to the Clydesdale stallion "Baron Wigton."

Cattle.—Both the Red Poll and Holstein Friesian herds are maintaining their good condition and milk yields. Ten cows calved during the month, and the total results are, therefore, better than those for July.



Renovation of Lucerne Lands with Cultivator.

Very little grazing has been available for the milking herd, and this deficiency has been met by extra hand feeding. Lucerne hay in the field racks, night and morning, and lucerne and barley silage, with small quantities of bran, fed in the byres twice daily, form the bulk of the ration. Special attention is now being given by the herdsmen to the cattle which have been entered for the September Royal Show.

Stock Feeding Experiment.

An investigation is now being carried out to test the relative value of different foods, and the consuming capacity of the dairy cow in full milk. Eight Red Poll cows have been selected. Every endeavour was made to choose cows as much alike as possible, and all are in periods of early lactation. The cows are weighed after being milked, and accurate records are to be kept for one month of the amount of food consumed and its relation to the yields of milk and butter, and the varying condition of the animals. The bulk fodder fed in this experiment is cereal chaff and lucerne as hay, chaff, and silage, while varying quantities of bran and crushed oats are to be given to various cows. The result of these experiments should demonstrate the extent to which it is profitable to feed bran or crushed oats as concentrates to a milking herd.

Sheep.—Although, for a dry season, the farm is heavily stocked, the flocks look well, mainly as a result of feeding off early-sown crop, winter fodders, lucerne, and self-sown growth in the fields cropped last year.

Two trucks—264 in all—Suffolk Cross lambs, of this season's drop, averaged during the month 21s. per head. Two more truck loads are now ready for market. Nine hundred lambs have been marked this season from our cross-bred ewes, and the stud Border Leicester and Suffolk flocks are showing very good lambing percentages.

For the past five years an average of 160 per cent. of lambs have been marked from the Suffolk stud, which proved its great prolificacy. At the last Sheep Breeders' show, held late in July of this year, nine prizes were secured by our Border Leicester stud. Besides securing champion and reserve champion in the ewe classes, a two-toothed ram from the farm was placed first and reserve champion against a large section of rams of different ages.



Reserves of Hay, Werribee, 1919.

VALUE OF LUCERNE AS WINTER FODDER.

The heavy carrying capacity of lucerne, under irrigation during spring and summer, is generally recognised, but few stock owners realize its value as a winter forage. At Werribee, lucerne appears to grow quite as luxuriantly during a moderate winter as any of the winter-growing cereals and leguminous crops. For the five months, April to August, lucerne, if judiciously fed, will carry up to four ewes and their lambs to the acre. Two hundred full-mouthed ewes were grazed from 1st April to 31st August, 1918, in several fields of different sizes, totalling 50 acres, and 180 fat lambs were reared during that period. This, reduced to money values, means:—

180 fat lambs at 21s	...	...	...	£189
200 ewes, five months wool growth at 1s. per head	...	...	...	200
per month	...	...	...	50
				<hr/>
				£239

In addition to the lambs and the growth of the wool, the ewes were fattened before 1st September, after the lambs were sold. Therefore, the approximate gross return was £5 per acre.

The lucerne land was then cultivated and manured with 2 cwt. super. per acre, and during early November of last year the first hay crop was harvested. Lucerne, as a winter forage, after it reaches second season's growth at Werribee can, in average years, be made to yield feed worth from £4 to £5 per acre during the months April to August, without materially interfering with the production of the following hay crops. The secret of successful lucerne grazing is the frequent shifting of the sheep from one small field to another. If this is carefully done the maximum results will be obtained.

RENOVATION OF LUCERNE FIELDS.

One of the most important farm operations for the month has been the renovation and manuring of lucerne fields. To maintain a proper lucerne stand, it is necessary to cultivate and manure it during the early spring months. Lucerne has proved itself to be "King of fodders" on the irrigation lands of Werribee, and, therefore, deserves the best of treatment.

The heavy-tine implement is used, as shown in the accompanying illustration, to thoroughly break up the surface to a depth of 3 inches to 4 inches.

The practice has been to feed off the lucerne field quite bare during April, May, June, and July, and then, in August and September, give two cultivations, if possible at right angles to each other.

Lucerne is a hardy plant. The operator is often led to believe that harm to the field will result from heavy cultivation, but this has not been found to be so at Werribee. The work should be done to the depth of 3 to 4 inches, if possible. The second cross cultivation should be the deeper. The cultivator should be followed by the ordinary seed and manure drill; the manure box and gear being used to distribute from 1 to 2 cwt. of super. per acre as a top dressing. Two cwt. has been proved to be the most profitable application at Werribee. After the drill a light roller should be used to insure a good clean crop of hay, free from clods, which are usually lifted during the cultivation. The following figures show the cost of this lucerne renovation:—

		Cost per acre.		
		£	s.	d.
Two tine cultivations at 2s. 6d. each	..	0	5	0
Drilling superphosphate .. ..	..	0	2	0
Rolling after drilling .. ..	..	0	1	6
Super., 2 cwt. at 5s. 6d. on ground ..	..	0	11	0
		<hr/>		
		£0	19	6

The approximate cost of doing the work thoroughly is thus £1 per acre; on lighter soils 15s. should represent the total cost. This means that, if half-a-ton extra of lucerne hay is harvested during the several cuts of the subsequent season, a profit will be shown. As a matter of fact, for the past five years experimental investigations here have proved that from one and a half to two tons extra hay is obtained as a result of renovation and manuring.

Lucerne growers on dry areas would also be well advised to renovate and top-dress their lucerne fields, and under these conditions 1 cwt. of super. per acre each year should give excellent results.

POULTRY.

Another stage has been reached in the erection of the buildings, yards, and plant for the poultry recently transferred from Wyuna Farm, and birds generally are settling down to the altered conditions.

The brooder sheds, laying sheds, and chicken house are now completed, and three hundred chicks are in the brooders. Incubation is proceeding, and after the late start, rendered necessary by the transfer, a short hatching season this year will result.

Five pens of stud leghorns have been mated during the month, and settings from these tested birds are now available for settlers.

One thousand seven hundred and seventy eggs were gathered during the past week from 500 laying hens.



Portion of Experimental Plots showing effect of the third application of $\frac{1}{2}$ cwt. of superphosphate per acre compared with the adjoining unmanured plot.

Experimental Plots.

Mr. George S. Gordon reports as follows on the Experimental Plots:—

CROPS

Early sown crops are holding their own fairly well, and early (or quick maturing) wheats, such as Gluyas, College Eclipse, and Comeback are already showing the erect habit of growth characteristic of these varieties in their early stages. In the seeding tests, the plants on the late sown plots have had a hard struggle to break through the surface, and the crops are, consequently, very thin and backward. In the manurial field, the farm-yard manure and superphosphate-dressed plots are still the best, and the variation in growth between the unmanured and the manured plots is more marked, while the continuously cropped plots are showing a large percentage of wild oats.

FLAX TESTS.

The flax plots were irrigated on 15th August, and are now coming along nicely. The soil on these plots was worked to a fine tilth before sowing, and on one section the seed-bed was compacted to such an extent that the drill wheels and discs did not sink in so deeply, and, consequently, the seed was sown very close to the surface. On this area

the germination and early growth of the plants was much better. Particularly was this the case on a few slight depressions where the soil, apparently, contained more moisture. To provide an ideal seed-bed for this crop it would, therefore, seem that the soil should—

1. Be in fine tilth.
2. Be firm or compact below the surface.
3. Contain sufficient moisture, right to the surface, to enable shallow-sown seed to germinate.

FEEDING OFF TESTS.

The first "feed" for the season has been completed on three of the forage crops in the green manural rotation field. The forages on these plots are grown and fed off in alternate years, in rotation, with wheat harvested for grain. The sheep are carefully weighed in and out of the plots, and the results are summarized in the following table:—

"FEEDING OFF" TESTS, 1919.

Plot No.	Crop, 1919.	Plot Area.	Date Sown, 1919.	Date Fed Off, 1919.	Crop Weigh. Per Acre.	No. of Sheep.	Days on Plot.	Per Acre.			Cash Value per Acre, calculated at 1d. per sheep per day for wool and 2d. per lb. for the live weight increase.
								Sheep Days.	Live Weight Increase.		
16	Rape ..	.95	27th March	25th July to 7th Aug.	37.1	14	13	191	141	l. s. d.	1 7 9
17	Barley ..	.9	27th March	1st to 16th Aug.	55.7	15	15	250	132		1 7 2
19	Algerian Oats	.95	27th March	1st to 25th Aug.	91.5	15	24	378	210		2 2 10

This is the first time that Algerian oats has been used in these tests. Hitherto, a combination crop of rye and vetches was the forage grown on plot No. 19, and last year the wheat crop on this plot (as well as that on plot No. 14, where rye and vetches were ploughed in) was practically destroyed by the disease known as "take-all," while wheat following peas, rape, and bare fallow on adjoining plots was, comparatively, only slightly affected. It thus seems that the rye served as a host plant, which, carried the disease from one wheat year to another, and it was decided to change the forage crop to Algerian oats, in order to test the reputation of this cereal to resist "take-all" on a soil known to be infected with the fungus. The result will, of course, not be available for some time, but the above table affords an immediate and good opportunity of comparing the yield and value of this well-known variety of oats with those of barley and rape. The small quantity of seed required per acre, and its generally low cost, make rape the cheapest crop to grow, but, even allowing this, the good return from the oats makes the latter more valuable for grazing. In appearance, the Algerian oats plot did not seem much better than the barley on plot No. 17, but it stood well and was fairly dense, and this accounted for its greater weight. Its stock-carrying capacity or grazing value is proved by the fact that on the first "feed" in this, a dry season, the crop weighed more, carried the sheep for a longer period, and produced an increase in the live weight of the sheep of 78 lbs. per acre more than the barley, and 67 lbs. per acre more than the rape.

FARM NOTES FOR AUGUST.

EXPERIMENT FARM, RUTHERGLEN.

The farm manager, Mr. P. B., O'Keefe, reports that during the month there has been an appreciable rise in the temperature, both of soil and air, with corresponding increase in plant growth, though some frosts have occurred. The crops have made excellent growth, though the rainfall for the past three months has been considerably below the average. The fall for August was 125 points. The fact that all crops were sown early on well-prepared land accounts for their favorable condition.

The general shortage of grass is causing owners of stock considerable anxiety. Reserves of fodder in this district are fast disappearing.

Farm operations for the month embrace fallowing, sowing of fodder crops, harrowing crops, discing for lucerne, inter-tilling hand plots, cultivating pathways, ploughing roadways and plantations in experiment field, pruning orchard and ornamental trees, tree-planting.

CULTURAL OPERATIONS.

A further 50 acres has been worked up and sown with rape, making the area under this fodder 100 acres. Ploughing, preparatory to sowing millet, is proceeding. The lucerne area in the Wallace paddock has been worked to a fine tilth for seeding, which will take place during September or October. A small area at the pig-sties has been worked up for sowing artichokes.

CROPS AND PASTURES.

Grass.—Pasture grass is very scarce, the limited rainfall and heavy frosts preventing rapid growth. Stubble land was grazed very closely before ploughing so as to spare grass areas as much as possible. The pasture available for sheep is being supplemented with grazing furnished by oat and barley crops. Cows and young stock, in addition to pasture grass, are given access to the oat crops, and receive a ration of chaff and bran.

Crops.—All crops look remarkably well. The evaporation being low they show no ill effect from the dry conditions prevailing. The oat crop in No. 14 was showing a fair amount of cape-weed. It was trampled solidly on the surface by grazing sheep, and consequently had to be double-harrowed, and this pulled out most of the weeds and mulched the surface of the land. Fifty acres of rape in the same field are showing well above ground, and with spring rains should provide abundance of feed.

LIVE STOCK.

Horses.—Twenty horses are still in work, half of the number being employed on permanent improvement, experiment field, and vineyard. The balance are fallowing and rolling farm areas.

Dairy Herd.—Seven cows are in milk at present, five being newly calved, and the average yield of milk per cow for the month, up to date, is 25 lbs. per day, with an average test of 3.9. Milk, cream, and butter to the value of £14 have been sold. All cattle are in good condition, especially the young stock. Some of the heifers by our Ayrshire bull are showing excellent dairy quality. All bull calves have been castrated. Fodder supply consists of green oats and grass pasture, with the addition of a ration of chaff and bran at milking. All silage has been consumed.

Sheep.—The cross-bred flock ewes are still doing well. Lambing is practically completed, and 92 per cent. of lambs have been marked to date. The lambs are of the Border Leicester cross. They are good lengthy sorts, and are growing rapidly. Owing to the scarcity of grass, they are being grazed on oat and barley crops alternately with grass paddocks. It is intended to pick out all dry ewes, and dispose of them, along with 50 weaners which were purchased for feeding off experiments.

Stud Border Leicesters.—Up to date, nineteen lambs have been dropped; the balance of the ewes should lamb at an early date. Those by the New Zealand ram, Kelso Douglas, are well developed, and show good quality.

Swine.—Fifty-four pigs are now on hand. Six baconers sold at Wangaratta market on the 26th August realized £26 4s. A further lot of eleven are coming on well, and should be marketable within a month. One crossbred sow has littered since last report, giving twelve pigs. We should have a supply of stud Berkshire pigs for sale in the near future. Food supply at present consists of ground wheat and barley, molasses, green oats, and barley pasture, and for young pigs a little skim milk and pollard is provided.

Additions to existing sties are in course of erection.

ORCHARD.

All fruit trees have been pruned, and the orchard will be ploughed at an early date. Spraying will be commenced as soon as development of buds shows that same is expedient.

Ornamental trees have been pruned and attended to where necessary.

Tree Planting.—One hundred Robinias have been planted out, along with 80 of the sugar gums sent on from Broadford Nursery.

EXPERIMENTAL WORK.

The officer in charge of the Experiment Field, Mr. T. M. Whelan, reports that the following work has been done during the month:—Hand plots intertilled and hand-hoed; pathways between plots again cultivated; all waste land and angular pieces at north and south ends of fields 1 and 2 ploughed up, headlands ploughed and crowned in centre; plantations, including those where palms and trees are growing in Serpentine Drive, ploughed and worked up; all trees, palms, &c., pruned; headlands in No. 3 ploughed, and all ploughed, unsown portions of this field harrowed down in readiness for summer fodder experiments.

All crops, including Winnemera rye grass and flax, have made excellent growth, and with fair rains should give heavy yields. The rye and tires plot in green manure threatened to run to ear, therefore fifteen weaners have been put on to feed it off. It is intended to graze all other plots in this and Rotation section at an early date. Considering the dry weather experienced, all the fodder plots, with the exception of rape, have made fair second growth. The rape plot has at no time made much headway, and has provided only a small amount of feed.

Early sown Sunset wheat in No. 3 has run to ear, and with prevailing frosts it is doubtful whether it will mature its grain.

Pasture Grass.—The area planted with wallaby grass, clover, and Panicum Prolatum, as a pasture test is commencing to make headway, and with fair spring rains will probably give a return. There appears to be a good germination, and if planting had been possible a couple of months earlier a much better result would in all probability have been obtained.

THE COST OF A DOZEN EGGS.

A. V. D. Rintoul, Assistant Poultry Expert.

Experienced poultry-farmers will readily agree that the above title is undoubtedly an ambitious one; so many points have to be considered before the cost to produce a dozen eggs can be definitely stated.

It must be admitted in the first instance that a capital of about £1,500 is involved by the time a man has a 1,000-bird plant in full running order. Interest on capital must be allowed for, also labour, depreciation on plant, and rates and taxes. Food, litter, and water have to be supplied to the birds as well as fuel for incubators and brooders, and the revenue consists of sale of eggs and surplus stock. The market value of eggs is very variable, being partly seasonable, partly dependent on the price of bacon, and partly on the question of supply and demand, the cost of feed having little to do with the price, as the poultry breeders have hardly yet combined sufficiently to insist on an honest price. With wheat at about 5s. 4d. per 60 lb. bushel, oats 5s. 6d. per 40 lb. bushel, maize 6s. 9d. per 56 lb. bushel, peas 9s. per 60 lb. bushel, wheat pollard 1s. 8d. per 20 lb. bushel, and bran 1s. 8d. per 20 lb. bushel to the poultry farmers, it is not possible to feed properly under 2d. per bird per week (8s. 8d. per annum). A poor layer will eat as much as a good layer, but will lay only during the spring and summer months, when eggs are cheap.

The average production per bird in Great Britain is about 90 eggs per annum, and in Victoria it is hardly over 108. Assuming 108 as the Victorian average, these eggs at 10d. a dozen would return 7s. 6d. against a cost of feed alone of 8s. 8d. *It is impossible, therefore, to consider 10d. a dozen a payable price for eggs.*

With increased production there must be increased attention and shedding on the one hand, and an improvement in the average price on the other hand. A bird laying 180 eggs lays some in the dearer time, and one producing 280 eggs is laying all the year round, and is the only bird really entitled to the *average* price, as at present computed. The popular mistake is to add up the bi-weekly price of eggs, divide by 104, and call that the average price. This is absurd. The only way to get the real average price is to take the total number of eggs produced, against the actual net returns from sales after cartage, freight, and commission have been deducted. The eggs from Burnley competition were last year sold for 1s. 3d. a dozen, but that is above the average net value. The ordinary consignor would have charges deducted, and would net about 1s. 1½d. per dozen. Assuming that he is running a flock of 1,000 birds, only 850 of these could be pullets, the balance would be older birds required to maintain the flock. For some weeks their eggs would be required for hatching purposes, and the profit made from the rest of their eggs during the year would be required to make up the difference between the cost of chicken rearing as against the sale of the adult birds after the laying season, which at present prices shows a loss.

It may be assumed that the average man will expect, with reasonable housing and feeding, to get 168 eggs (fourteen dozen) per pullet during her laying year. If he gets 1s. 1½d. net per dozen his revenue will be 15s. 9d. against a cost of 8s. 8d. for feed, *i.e.*, 7s. 1d. per bird

over the feed bill on 850 birds. This represents £301 0s. 10d., which is, alas! thought by many to be the actual profit. It is not.

The labourer is worthy of his hire, and £3 a week is at present the basic minimum wage. Surely, for a week of seven days of twelve or more hours, the hard-working long-suffering poultryman is entitled to his £3 per week? Then the capital involved is £1,500. Allowing £500 off this for the dwelling house, there is still the sum of £1,000 invested and interest on this, with depreciation and rates, would represent £100 a year. Taking £301 0s. 10d. as return over feed bill, against £156 labour and £100 interest, depreciation, &c., there is a net profit of £45 0s. 10d. on 850 birds each laying fourteen dozen eggs at 1s. 1½d. per dozen. In other words, about 1d. per dozen profit. It is, therefore, an absolute fact that under present conditions the average cost of producing a dozen eggs is about 1s. 0½d.

The poultry farmer is one of the few who have not secured proportionally advanced prices during the war. In a general way it may be assumed that on the average poultry farm, the cost of feed, labour, and interest on capital amounts to 3d. per bird per week. The real profits are made when the breeder can raise the average of his flock above 168 eggs per annum, or can secure profitable side-lines, such as stud sales and the day-old chick trade. Many people seem to think that labour and capital should not be counted against the return. Why? The cost of labour must be a charge against manufacture if we are to remain solvent.

If the poultry farmer can secure 180 or more eggs per pullet, he will not only get an extra dozen eggs, but with increasing ratio will raise his net return per dozen eggs. That is a reason why no man can state the actual cost of production. One can calculate on average returns only, and while some successful men get well over 168 eggs per bird, it would be very dangerous to suggest that the average poultry keeper will get more. The general average throughout the State is low, because of the careless methods in some country districts. Few can count on stud sales, or sales of day-old chicks; they may eventuate, but even so, do not affect the cost of producing market eggs, being the result of competition success, advertising, &c.

The suburban dweller who keeps a few fowls, largely fed on house scraps, &c., of course, has a relatively lower feed bill, but his (or her) figures cannot be considered in any way in arriving at definite statements regarding the true business details of poultry farming. It is the positive opinion of the writer that eggs at a shilling a dozen may about pay actual expenses, but that there is no margin of profit whatever. The man in a small way has no capital to enable him to hold his eggs in a cool store on the chance of getting a higher price. Scarcely any poultry breeders in Victoria do this, the eggs in cool storage are practically all held by manufacturers and speculators; but the difficulty is the wide margin between actual return and the retail price. At the time of writing eggs are selling at from 11d. to 11½d., say 11½d. middle price, and deducting freight and commission, the net return is 10½d. The retail price is from 1s. 3d. to 1s. 4d. per dozen, and the consumer thinks that the poultry farmer is doing well "with eggs at 1s. 4d." Eggs usually pass through a number of hands before reaching the consumer, and each hand takes its toll. When a "direct from farm to consumer" scheme can be evolved, the prospects for the poultry farmer will be much brighter than they are now.

Careful selection, rigid culling, decent housing, and scientific feeding will undoubtedly considerably raise the return per bird and make the industry distinctly profitable, but it is beyond question that the industry has been severely affected by the war, and at times statements are made without due regard to facts. An average net price of 1s. 3d. a dozen, on a yield of 180 eggs per bird would show a reasonable margin of profit on the basis that food, labour, and plant are now worth 3d. per bird per week, a cost of 13s. per annum against a return of 18s. 9d.

SOME URGENT NEEDS OF THE DAIRY FARMER.

J. Matthews, Dairy Supervisor.

Testing and Culling.

The doctrine of "weeding out the wasters," taught by the Department of Agriculture for years, has been learnt by some of our dairy farmers, and from almost every herd that has been tested cows have been sent to the fattening paddock. That there is urgent need for a wide extension of the test system is only too apparent to any one who has inspected many of the herds of the State.

The common objection to the system is that under it too much time is required to weigh and record the weight of each cow's milk. The feebleness of this objection is shown when it is mentioned that a cow's milk can be weighed and recorded in less than one minute. Most of those offering this weak reason for not testing their cows apparently forget that in every herd there are almost certainly a few wasters, which yield the farmer no return whatever after the cost of feed and attention is met. The time it takes to milk these unprofitable animals would more than suffice to weigh and record the weight of a decent-sized herd. After travelling different parts of the State, I am convinced that if the dairy herds of the whole State were tested, probably about one-fourth of them would be found somewhere on the border-line of profit and loss. It will, therefore, be seen that the testing of cows is a very serious question for the farmer.

The fact that the average dairy farmer to-day is settled on a comparatively small holding, and that his herd is consequently a limited one makes the necessity for testing more urgent. He has no surplus feed for "boarders"; therefore it is imperative, if his dairying is to be successful, that every cow should be of a good order. The test system is the only reliable way of proving which cows are profit-makers and which are not, and very few of those who adopt it fail to continue it.

At the same time, it is not suggested that all the culling should be made from the female part of a herd. If better bulls had been sought in the past, the heavy culling, so essential now, would not have been necessary. There is no doubt that if many of the sires of to-day were replaced by better animals there would be a very great gain to future herds. Surely it is a short-sighted policy for a farmer to save his best heifer calves, and then mate them with some nondescript bull.

Better Feeding.

Side by side with the culling of the herd must come a more thorough realization of the needs of the remaining or selected cows. A farmer might have the finest herd in the State, yet it would be of no use unless proper feed and attention were given, for the cow is simply an animal-machine for changing feed to milk and beef.

How often do we find the milking cow treated worse than a vagrant? She is put in the bail and milked, and is then driven to a bleak, bare paddock to pick what scanty bits of grass she can. Her only remedy is to hunger-strike and to refuse to give milk.

One of the defects of present-day farming is the lack of sufficient cultivation. The farmer trusts to nature too much. When the natural grass fails, he fails too. There are then two alternatives; either he must sacrifice his herd, or purchase feed at ruinous prices from some more favoured part of the State. The farmer then curses the elements for being unkind; but the remedy was in his own hands all the time. During the years of plenty, he neglected to establish a reserve fund. He stocked his farm to the full, and when the lean years came he was unready. During times of abundance, sufficient feed can be put by to tide any dairy farmer over a possible bad year. If just a little beyond probable requirements be cultivated each year, a reserve fund of feed will soon be available for a bad season.

Not only must sufficient feed be available, but it must be suitable. The constitution of the cow calls for succulent feeding. If this be not given, nature's law is interfered with, and the result is that the animal becomes more or less unhealthy. Had proper feed been provided, many a cow that has had to be dried off would probably have milked through the season, trips to the chemist would have been saved, and days of worry and anxiety avoided. Every Dairy Inspector can tell of calls made on his time by owners of stock where a cow's yield of milk has dropped and the animal has the appearance of being out of sorts. In nearly every case, it is traceable to some feeding trouble which has set up indigestion, impaction, or some kindred ailment.

Better Shelter.

A very necessary requirement on most dairy farms is the provision of better shelter. It is heart-breaking to visit a dairy farm on a piercing, cold, showery day and see the cows all lined up and backed into a wire fence for protection. Farmers, particularly in timberless districts, should plant clusters of suitable trees in circles. After a while these can be "topped," and this will cause them to throw out a thickening of branches which will ultimately provide shelter. Protection in cold, snappy weather is just as important as feed.

There is one more essential which every dairy farmer should see to—that is a hospital yard. On every dairy farm in the course of a year there are cases calling for special attention and treatment. For these a nice, snug, clean yard and shed, within reasonable distance of the homestead, should be provided. It is impossible to give a sick beast a fair chance out in the open paddock, and the loss of cattle, owing to the want of suitable hospital yards, must be very heavy.

That dairying does not pay is a common cry, and, unfortunately, many who utter it are speaking out of their experience. But they are making a wrong generalization, for in ninety-nine out of every hundred of such cases, the failure, or partial failure, has resulted from their haphazard methods. The key to profitable dairying is the testing of cows, yet on most farms it is neglected. The other suggestions in these notes for proper feeding and sheltering of cows are scarcely of less importance; and with our uncertain seasons, every farmer who hopes for success must make reasonable provision in case of drought.

ORCHARD NOTES.

E. S. Prescott, F.L.S., Pomologist.

The Orchard.

SPRAYING.

The peach aphid will now have made its appearance in orchards which were not sprayed with the red oil emulsion in the winter. The tobacco solution will now be required, and this may be sprayed on as strongly as the grower wishes. If possible, a second spraying should be repeated quickly after the first operation, so as to kill any aphides previously protected by the others, or any that may have only been weakened by the first operation.

The time has also arrived when spraying is needful for the prevention of all fungus diseases, such as shothole or scab, black spot, leaf rust, leaf curl, &c. In the case of these pests, "prevention better than cure" is the invariable rule; and to delay beyond the correct period the application of the necessary sprays is to court disaster. For black spot of the apple and pear, the spraying should be performed as soon as the earliest flowers are opening. For shothole and scab the time to spray is before the flower petals expand; and the spraying may be repeated, if necessary, after the fruit has set.

For rust and leaf curl the spray should be applied before any sign of the trouble appears on the foliage; thus, if the fungus were present during the previous season, it will be necessary to spray early to combat it successfully.

The basis of all the successful fungicides is sulphate of copper or bluestone. Bordeaux mixture (a mixture of bluestone, lime, and water, known as the 6.4.40 formula), is used; the materials and quantities being 6 lbs. bluestone, 4 lbs. lime, and 40 gallons water.

Another spray, and in some locations equally successful in its results as the Bordeaux mixture, is the copper-soda spray, the proportions being 6 lbs. bluestone, 8 lbs. washing soda, and 40 gallons of water. In each case the materials should be separately dissolved, and then evenly and simultaneously mixed in a third vessel.

It is very urgent that the lime should be thoroughly fresh and quick, otherwise the spray mixtures will give very inferior results. A second necessary point is that the copper sprays should be used as soon as they are made. Where the grower does not wish to make his own spray, there are quite a number of ready-made Bordeaux pastes and Bordeaux mixtures already on the market, which can be used with satisfactory results. In fact, the use of these has become fairly general, and it is not now the practice for growers to make their own sprays.

GENERAL.

It is most important that ploughing should be completed as early as possible. In the past, it has very frequently happened that, owing to delaying the ploughing, the orchard and the fruit crop have both suffered very considerably. It is absolutely necessary to cultivate the surface early, to take advantage of the moist surface and consequent easy ploughing; and also to conserve as large an amount of moisture in the soil as possible. The longer the ploughing is delayed, the less amount of moisture is retained in the soil for summer use. Deferred ploughing certainly means dry soil, enfeebled trees, and diminished results. Early ploughing gives exactly opposite results; the earlier the ploughing, the more soil water is conserved.

When the ploughing is completed, the clods should be crushed, and the land harrowed, so that a fine earth mulch may be obtained. The orchard surface should be kept as level as possible, and no irregular ridging or furrows should be allowed.

All cover crops planted to supply humus to the soil should now be ploughed in. If the plants are of a leguminous nature, the best time to plough these in is when they are in full flower. If the growth has been at all excessive or rank, the crop may be rolled before ploughing; or it may be cut or mowed with a mowing machine. Every care should be taken that the plants should be distributed evenly over the ground, and large quantities in a mass should not be ploughed under. Artificial and stable manures may also be given to the trees at this time. These should be applied before ploughing.

GRAFTING.

The work of grafting should be completed early in the month. The most useful method of re-working old trees is to cut the head right off, leaving only the stump. Then grafts can be put in according to the fancy of the grower. The old method of cleft grafting has been superseded by the bark or crown graft. The latter method does not cause any damage to the wood and thus, with care, no rotting can take place. The best method of bark grafting is the saddle graft: that is, the graft is inserted in the bark and a strip of bark is carried right across the trunk and inserted in the bark on the opposite side. This method is much slower than the ordinary bark graft, but it insures a much quicker healing over the old stump.

REMINDERS FOR OCTOBER.

Live Stock.

CATTLE.—Except on rare occasions, rugs may now be used on cows at night only. Continue giving hay or straw, if possible, to counteract the effect of green grass. Be prepared for milk fever. Read article in *Year-Book of Agriculture*, 1905, page 314. Give calves a dry shed and a good grass run. Continue giving milk at blood heat to calves. Be careful to keep utensils clean, or diarrhoea will result. Do not give too much milk at a time for the same reason. Feed regularly with regard to quantity and time. Give a cup of limewater in the milk to each calf, also place crushed oats or lucerne hay in a trough so that they can eat at will.

Sow maize for summer feeding and ensilage, also Japanese millet for grazing during dry summer months. Mow surplus grass for hay. If cut when the grass or trefoils are in bloom, grass hay will be as good fodder as any cereal hay. If top-dressed with phosphatic or farm yard manure, good returns will be obtained from grass hay; it has also the great advantage that mice will not work in it. Cut 1 acre for each cow in the herd; it will keep until the next drought if protected from the weather.

PIGS.—Supply plenty of bedding in warm, well-ventilated styes. Keep styes clean and dry, and feeding troughs clean and wholesome. Sows suckling young

should be well fed to enable them to produce plenty of milk. Give young pigs pollard and skim milk in separate trough as soon as they will take it, and keep them fattening from the start to get them off as early as possible. Give a tablespoonful of bone meal, or half that amount of mineral phosphate, per 100 lbs live weight in food daily. If pigs are lousy dress them with kerosene emulsion or sulphur and lard, rubbing well into the crevices of skin, and disinfect styres. Pig breeding and feeding should be very profitable for a long time to come, and it should be safe to launch out now.

Revised edition of Bulletin 16 is now available.

SHEEP.—Shear as early as the weather will permit, and avoid the usual excessive dust in travelling to, and yarding at sheds. Burr and seeds also collect on the fleeces if shearing be left until late in the season, particularly with lambs. Shear all lambs intended to be held over—they thrive better and make more growth through the ensuing summer and autumn. Fleeces from well-bred sheep should be skirted with care, the better the class of wool the greater the necessity. From fleeces that have become dry and earthy on the backs, remove only the merest stains; there is little advantage in skirting these. It is better management to have ample tables and extra hands skirting closely than to hastily tear off unnecessary wool and then employ men at other tables to sort "broken fleece," "first," and "second" pieces, &c. All stains must be removed from ewes' fleeces, and puzzle stains from the bellies of wethers. Keep separate all coarse fleeces from the finer sorts, and in merinos the yellow and mushy from the shafty and bright. Skirt all hairy thighs from crossbred fleeces. Avoid sending wool to market in long, round-sided bales, known as "sew-downs." Press in a box-press, forming square sides. Brand bales neatly, on one side only, and not with sheep-branding oil, tar, or paint. Stencil plates and branding ink can be obtained on application to the respective brokers.

At first signs of scour drench with turpentine and oil. This preparation is now procurable in emulsion form, and thus the fear of choking is removed. If discharge be dark and accompanied with mucus, yard over night, drench on an empty stomach, repeat again in about fourteen days, and in some cases a third dose will be necessary. Change to new pasture if possible, or give a little grain, whole oats for preference.

POULTRY.—The bulk of incubation should cease this month—late chickens are not profitable. Devote attention to the chickens already hatched; avoid overcrowding. Feed with dry mash. Also add plenty of green food to ration, ordinary feeding to be 2 parts pollard, 1 part bran, and a little animal food after the first fortnight. Feed ground grain, such as wheat, bulled oats, maize, and peas, which should be fed in hopper to avoid waste. Grit or coarse sand should be available at all times. Variety of food is important to growing chicks; insect life aids growth. Remove brooders to new ground as often as possible; tainted ground will retard development.

Cultivation.

FARM.—Plant main crops of potatoes in early districts and prepare land for main crop in late districts. Fallow and work early fallow. Sow maize and millets where frosts are not late, also mangolds, beet, carrots, and turnips. Sow tobacco beds and keep covered with straw oressian.

VINEYARD.—This is the best month for field grafting. If stocks bleed too copiously, cut off a day or two before grafting. Make sure that scions are fresh. Placing butts in clean water for a day before grafting is recommended. Field grafts must be staked, to avoid subsequent straining by wind and to insure straight stem for future vine. Stakes are also necessary for grafted rootlings for same reasons. Temporary stakes 3 feet long will suffice. Dishud and tie up all vines, giving special care to young plantations. Beware of spring frosts. Keep a sharp look out for cat worms. (Bulletins on both subjects will be posted on application.)

Conclude spring cultivation (second ploughing or scarifying and digging or hoeing round vines). Weeds must be mastered and whole surface go into good tilth. Sulphur vines when shoots 4 to 6 inches long.

Varieties liable to black spot should be sprayed early (when shoots are a couple of inches long) with Bordeaux or copper soda—repeated sprayings will be necessary should the spring prove a wet one. (Bulletins on black spot will be posted on application.)

Cellar.—Taste all young wine; beware of dangerous symptoms in unfortified fruity wines, which may need treatment. Fill up regularly all unfortified wines.